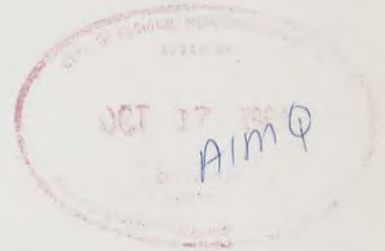


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# 1983 Report on the Canadian Automotive Industry

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Government  
of Canada

Gouvernement  
du Canada

Regional Industrial  
Expansion

Expansion industrielle  
régionale

Canada

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The Department of the Canadian Automotive Industry, in its 1983  
annual report, has pointed to significant changes in the industry  
and emphasized that meeting the industry's needs for information is the  
primary purpose of the Department's Information Services. The Department's  
annual report of 1977 and the annual report of 1979, the 1981 Automotive Year Book  
re-emphasized that an annual report of the Canadian Automotive Industry should be  
published by the Federal government. The following report represents the  
Department's positive response to an increasing demand for information on  
the state of the automotive industry in Canada.

This report, however, is not the first of its kind. It is the first of its kind  
to be published for the public. It is the first of its kind to be published  
by the Department of the Canadian Automotive Industry in 1983 and the first of its kind  
to be published for the public. It is the first of its kind to be published  
by the Department of the Canadian Automotive Industry in 1983 and the first of its kind  
to be published for the public.

A major objective of the Department's Information Services is to provide  
a regular, authoritative, accessible and up-to-date source of information  
on the state of the industry and the automotive industry in Canada.

**1983 REPORT ON THE CANADIAN AUTOMOTIVE INDUSTRY**

The report is a comprehensive overview of the industry's performance in 1983.  
It provides a detailed analysis of the industry's performance in 1983.  
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## Introduction

The importance of the Canadian automotive industry, as the largest Canadian manufacturing sector, has resulted in suggestions that a source of continuing and consistent data covering the industry should be made available to the general public. Reiterating recommendations from an industry task force report of 1977 and the Reisman Report of 1978, the 1983 Automotive Task Force recommended that an annual report on the Canadian automotive industry should be initiated by the federal government. The following report represents the government's positive response to an increasing demand for more information on the state of the automotive industry in Canada.

This report, because it is the first one, is more extensive in scope than what is envisaged for the future. It is not just a report on the Canadian industry in 1983 and its prospects for the foreseeable future, but a very much broader report which documents the history of the industry in Canada since 1978 and the significant events on the international scene which have affected its performance.

A wide range of statistical information on the Canadian industry is included in a special statistical appendix to the report. This data expands on the information in the text and updates much of the information contained in both the Reisman Report and the more recent task force report.

In future years the report will provide an opportunity to present, on an annual basis, a comprehensive picture of developments in the industry, its products and trade, as well as a close examination of such major topics of interest as productivity and product and process innovations. It is hoped that this annual report will foster a greater understanding of the Canadian automotive industry.

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## CHAPTER 1: HIGHLIGHTS OF THE CANADIAN AUTOMOTIVE INDUSTRY IN 1983

### Synopsis

1983 saw a gradual recovery taking place from the depressed conditions which prevailed in the Canadian automotive industry between 1980 and 1982. There was a welcome return to profitability during the year which strengthened the financial position of each of the major vehicle manufacturers. In the parts sector, the value of shipments increased to over \$6.5 billion as the effects of increased North American vehicle production were felt. Automotive dealerships continued to adapt to changed market conditions during 1983 and, while the market improvement came too late for some, others were able to recoup losses sustained over the previous two years. Labour market conditions improved for all sectors of the industry, with total employment rising from 98 900 in 1982 to 115 000 1983.

The automotive industry's performance during the year demonstrated its basic strength. Yet, because changes in the industry's business environment were continuing to take place, many questions remained as to the measures industry, labour and governments should take to assure the industry's future. Throughout the year, and in a variety of forums, government, industry and labour explored possible answers to these questions. An advanced manufacturing seminar was sponsored by the federal government and the Automotive Parts Manufacturers' Association to allow for the dissemination of knowledge and experience in the introduction of new technology and managerial techniques. The Government of Ontario's Centre for Automotive Parts Technology, which came into full operation during 1983, provided another site for the discussion of issues relating to improving the industry's productivity. An especially valuable contribution to improving the industry's competitive position was made during the year by the Federal Task Force on the Canadian Motor Vehicle and Automotive Parts Industries. This private sector task force submitted its final report in May of 1983 to the Honourable Edward C. Lumley, Minister of Regional Industrial Expansion.

### The Automotive Task Force

The Automotive Task Force, co-chaired by P.J. Lavelle and Robert White, was the first in a series of sector studies designed to provide the government with advice from the private sector.

The task force included representatives from Canadian motor vehicle and automotive parts companies and associations and from the United Automobile Workers Union (U.A.W). The mandate of the task force was to review the development, competitive environment and position of the Canadian automotive manufacturing industry and to make recommendations to assist the government in formulating policies which would contribute to a balanced and competitive automotive manufacturing capability in Canada.

Task Force  
Recommendations

The issues addressed by the task force were far reaching and multifaceted, covering areas such as trade policy, Canadian content, taxation, government programs, human resources, industrial relations and technological change. Among the recommendations of the task force were the following:

- that a trade policy be pursued which would require all vehicle manufacturers selling vehicles in the Canadian market to make binding commitments comparable to the commitments now being made by the vehicle manufacturers operating under the Automotive Products Trade Agreement;
- that incentives be established to encourage the further development and expansion of a world-competitive indigenous Canadian automotive parts industry;
- that an analysis of the opportunities for expanded parts production in Canada be undertaken;
- that the federal sales tax be levied on all vehicles sold in Canada on the basis of the purchase price paid by the dealer;
- that the preferential tariff rate extended to developing countries for their automotive products be limited to two thirds of the most favoured nation tariff rate for automotive goods;
- that the federal government's Industry and Labour Adjustment Program (ILAP) be expanded and extended;

- that the human resource aspects of changing conditions in the automotive industry be given immediate and thorough study;
- that an Automotive Council be established; and
- that an annual report on the state of the automotive industry in Canada be instituted.

The government responded to several of these recommendations during 1983.

#### Annual Report

An annual report on the automotive industry in Canada was initiated. Each year the report will provide a comprehensive review of developments in the Canadian and world automotive industries together with an analysis of the Canadian industry's future prospects.

#### Human Resources

In the area of human resources, the Canada Employment and Immigration Commission implemented training and retraining measures for motor vehicles and auto parts workers under Manpower Consultative Service Agreements. These measures were carried out in consultation with the industry and the U.A.W. The Commission also began work on a human resource study to examine emerging trends in labour supply and demand and the impact of changing conditions of work on the industry's labour force.

#### Trade Policy

With respect to the task force recommendation for a new trade policy framework, the government indicated that it would prefer a negotiated solution to a mandated one. With this intent in mind, Minister Lumley held discussions with senior representatives of the major automotive companies and government authorities in Japan during the week of January 9, 1984. Minister Lumley stressed during these discussions that Canada is seeking its fair share of Japanese automotive investment and sourcing in order to assist our industry to increase its technological capability and international competitiveness.

#### Equitable Taxation

The task force recommendation on the desirability of shifting the federal sales tax from the manufacturers level to the wholesale level purchase price paid by dealers was addressed by the Minister of Finance, the Honourable Marc Lalonde, in his February 15, 1984 budget. Prior to the February budget, motor vehicles produced in Canada attracted

a 9 per cent federal sales tax calculated on the basis of their sale price to retailers, while vehicles produced outside Canada attracted a 9 per cent tax calculated on the basis of their duty-paid value. The different tax bases resulted in North American produced vehicles attracting \$100 to \$200 more tax than comparable vehicles produced in Japan or Europe. The February budget proposed to shift the application of the sales tax on highway vehicles to the wholesale level. This will cause all highway vehicles to be taxed on their sale price to retailers in Canada irrespective of their origin.

**Parts Sector Study**

The government also agreed to the task force recommendation for a detailed study of the strengths and weaknesses of the automotive parts sector. Additional support for the parts sector came in January of 1984 when the government announced increased program assistance for the sector under the Industry and Labour Adjustment Program. Fifteen million dollars were added to the 1983-1984 ILAP budget, bringing total funding earmarked for the sector to almost \$40 million.

**Automotive Council**

A new Automotive Council has been established to provide the government with a source of expert knowledge from which to draw on in the course of formulating supportive public policies for the Canadian industry. The new Council includes representatives from both industry and labour and will further encourage the spirit of cooperation established with the formation of the Automotive Task Force.

While the Automotive Task Force was helping to set the automotive policy agenda in 1983, a number of other significant events were taking place in the industry. These events included the construction of a new wheel plant in British Columbia, the industry's continuing efforts to adjust to new market conditions and the establishment of the Ontario Centre for Automotive Parts Technology.

**New Wheel Plant in  
British Columbia**

Construction of an aluminum wheel manufacturing plant began on December 1, 1983 with a special ground-breaking ceremony at Tilbury Industrial Park in Delta, British Columbia. The Toyota plant is the first auto parts manufacturing facility to be established in Canada by a Japanese auto maker and represents the first step in what the federal government hopes will be considerably more



investment by the Japanese industry in the production of parts in Canada. The new facility will have some 100 employees and start production of 20 000 aluminum wheels per month in the spring of 1985. The raw material for the project will be supplied by Alcan, Canada's largest aluminum company. Current plans call for some seventy to eighty per cent of the output from the plant to be exported to Japan while the remainder will be destined for markets in Canada and the United States.

**Advanced Manufacturing Seminar**

The federal government and the Automotive Parts Manufacturers' Association sponsored a major industrial awareness seminar in November of 1983. Attended by 300 participants, the seminar encouraged the sharing of knowledge and experience in the introduction of advanced manufacturing technology and management techniques in the parts sector. Presentations in the form of case studies were made by six progressive parts manufacturers. These case studies covered such areas as process controls, just-in-time production, labour-management relations, quality circles, advanced technology, and set-up time reduction techniques.

**Ontario Centre for Automotive Parts Technology**

The automotive parts sector benefitted from services offered by the Ontario Centre for Automotive Parts Technology in St. Catharines. Established by the Government of Ontario in late 1982, the Centre is a source of information and technical expertise for the automotive parts industry. The Centre is designed to improve productivity and product quality through encouraging the adoption of new technologies and enhancing technological capabilities in product design, field development and manufacture. The Centre will increase the industry's ability to identify and capture new market opportunities both in the automotive field and in other transportation-related industries.

**The Vehicle Assemblers in 1983**

**Sector Structure**

The major vehicle manufacturers in Canada are General Motors of Canada Ltd., Ford Motor Company of Canada Ltd., Chrysler Canada Ltd., American Motors Canada Ltd. and International Harvester of Canada Ltd. In Canada, these five firms account for 99 per cent of passenger car production and

98 per cent of truck production. Their production facilities are integrated with those of their U.S. parent companies and, as a result of this and the operation of the Auto Pact, some 70 per cent to 80 per cent of vehicles produced in Canada are destined for the United States market.

Passenger Car  
Production

Ford and Chrysler made major changeovers in their production line-ups in Canada during 1983. Ford completed retooling and expansion programs at its Oakville assembly plant for production of its new Tempo and Topaz mid-sized models. Ford also made investments in its St. Thomas assembly plant for production of the full-size Crown Victoria and Grand Marquis models.

In June of 1983, Chrysler Canada produced the last of more than five million rear-wheel-drive passenger cars built at the company's Windsor assembly plant since 1928. Production of a new vehicle began after a three-month shutdown of the Windsor plant for retooling and expansion. Chrysler's new Dodge Caravan, Plymouth Voyager, and Dodge Mini Ram Van models combine the attributes of a family sedan and a conventional station wagon. The market responded positively to these new entrants and demand for this type of vehicle is expected to continue at high levels during 1984.

General Motors of Canada had scheduled a line changeover at its Oshawa plant for 1983. However, the changeover was postponed due to the continuing demand for the full-size Pontiac and Chevrolet models being produced at the Oshawa facility. GM continued to make new investments in its Canadian operations in 1983 and, during the year, completed the construction of an advanced paint system.

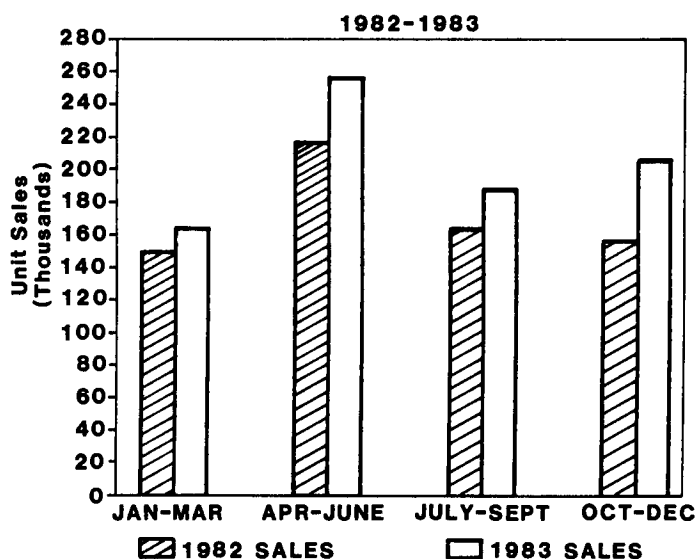
The vehicle manufacturers, in an effort to control inventories in North America through 1983, ran tight and well-controlled production schedules as they gauged the strength of the market recovery. However, the demand for the type of vehicles assembled in Canada remained high, and the impact of these schedules on production in Canada was minor.

Passenger Car Sales

After a faltering start, car sales increased by 17.5 per cent in 1983 over the depressed levels of 1982. In the first quarter, sales rose by 10 per cent over the comparable period in 1982. The

initial increase was a result of major incentive programs in the form of subsidized interest rates, expanded warranties, cash rebates and other forms of price reductions. As the year progressed and economic conditions improved, the market improvement proved self-sustaining. Sales in the final quarter were 38 per cent above the previous year.

**FIGURE 1**  
**Passenger Car Sales in Canada by Quarter**  
**1983 vs. 1982**



The market growth was entirely captured by the North American vehicle manufacturers. Sales of North American produced cars were up by 28 per cent over 1982 levels, with a total of 625 000 units being sold during the year. However, this encouraging performance did not match the average annual sales of North American produced cars in the pre-restraint, pre-recession period of 1978-1980.

**Imported  
Passenger Car Sales**

Imported passenger car sales declined by 6 000 units in 1983 relative to 1982. Sales of Japanese passenger cars declined by 1 600 units, largely as a result of the export arrangements which were in effect throughout the year. The Japanese share of the Canadian market declined to 21 per cent in 1983 compared with 25 per cent the previous year. The Japanese continued to dominate the import

market segment and on a combined basis they were responsible for 81 per cent of all imported cars sold during the year.

**TABLE 1**

**Passenger Car Sales in Canada (Thousands of Units)  
1978-1983**

Year	Domestic Sales	Total Import Sales	Total Import Market Share (per cent)	Japanese Import Sales	Japanese Market Share (per cent)	Total Sales
1978-80*	807	168	17.2	110	11.3	975
1981	647	257	28.4	208	23.0	904
1982	489	224	31.4	178	25.0	714
1983	625	218	25.9	177	20.9	843

\* Annual Average.

Source: Department of Regional Industrial Expansion.

Small cars continued to have a strong hold on the Canadian market with sub-compacts and imports accounting for 48 per cent of all car sales. In unit terms, the greatest growth took place in the intermediate size car segment. The market share of the intermediate segment rose from 19 per cent in 1982 to 23 per cent in 1983.

**Commercial Vehicle Production**

Total truck production in Canada in 1983 reached a level of 547 000 units. This represents an increase of 22 per cent over 1982. Truck production statistics in 1983 included 18 000 units of the new vans/wagons produced by Chrysler Canada. Since some of these vehicles will be registered as passenger cars/station wagons in future years, the actual level of truck production will turn out to have been overstated.

**Commercial Vehicle Sales**

Commercial vehicle sales continued the 1982 decline into the first quarter of 1983. As the year progressed though, there was a steady improvement and the year ended with sales up 15 per cent over the 1982 level. Recovery in the commercial vehicle sector lagged by about six months behind the recovery in car sales.

The light truck segment, which includes vans, saw some recovery in 1983 with sales of 179 582 units, however, Japanese penetration of the light truck market continued to increase during 1983.

**The Automotive Parts Sector in 1983**

**Sector Structure**

The automotive parts sector is traditionally divided into two major sub-sectors. Original equipment manufacturers produce components used by the assemblers in the production of new vehicles. Aftermarket manufacturers produce a wide range of parts and accessories which are marketed to the consumer, once he has purchased his vehicle, through a complex network of retailers, wholesalers, jobbers and service outlets. Original equipment manufacturers have over 70 per cent of the total market for Canadian parts.

Firms producing parts for the original equipment and aftermarkets may be placed in three categories: the vehicle assemblers, who have their own in-house operations, the independent foreign-owned parts companies and Canadian owned companies. With the exception of several medium-sized and export-oriented firms, many of the several hundred Canadian companies are characterized by relatively low-value products, high labour content and low capitalization.

**TABLE 2**

**Structure of the Automotive Parts Industry in Canada in 1981 (\$ millions)**

Segment	Value of Shipments	% Share
In-house	\$2 016	41.3
12 largest foreign-owned independents	999	20.5
Other foreign-owned independents	1 327	27.2
Canadian-owned	537	11.0
TOTAL	\$4 879	100.00

Source: Report of the Federal Task Force on the Canadian Motor Vehicle and Automotive Parts Industries (1983).

The majority of firms in the parts sector are located in the provinces of Ontario and Quebec. Original equipment manufacturers in these two provinces account for over 80 per cent of the total value of OE shipments.

#### Parts Production

Parts production in Canada increased for the third consecutive year during 1983 to reach \$6.5 billion. This constituted a 37.2 per cent increase over 1982 production levels. The magnitude of the 1983 increase was due to the higher vehicle production levels attained by the U.S. and Canadian assembly industries. The unexpected strength of the vehicle sales recovery in both Canada and the United States was manifest in parts supply bottlenecks. Domestic producers were short of parts in some product lines and this further depleted the supply of popular vehicle models available to consumers.

#### Canada/U.S. Trade Within the Auto Pact

The Canada-United States Agreement concerning Automotive Products (The Auto Pact), in effect since 1965, has had a significant influence on the development of the automotive industry in Canada. Prior to the Auto Pact, the wide range of models assembled by domestic producers for the domestic market contributed to high production costs and consumer prices. Since then, the companies have been able to specialize in a much narrower range of vehicle types, assembled in Canada at lower costs, with some 80 per cent of output now directed to the U.S. market. Approximately 30 per cent of the Canadian market requirements for North America type vehicles are met from domestic production facilities and 70 per cent from U.S. facilities.

Under the influence of the Auto Pact, two way Canadian/U.S. trade in automotive products has grown from \$1.2 billion in 1965 to \$38.4 billion in 1983.

Although Canadian/U.S. statistics for trade within the Auto Pact are not yet available for 1983, preliminary data suggest that a Canadian surplus in excess of \$7 billion will be achieved in motor vehicle trade while a deficit will be experienced in automotive parts trade of over \$4.5 billion. For trade within the Auto Pact then, Canada should experience a total automotive product trade surplus in 1983 somewhat larger than the total \$2.5 billion Auto Pact trade surplus of 1982. The current surplus position, however, should be viewed against

the total Auto Pact trade deficits experienced by Canada between 1973 and 1981.

**Total Canada/U.S.  
Automotive Trade  
in 1983**

Canada's total balance of trade in automotive products with the United States in 1983 posted a surplus of \$3.29 billion, up from the \$2.85 billion surplus recorded in 1982. The strong recovery of the U.S. economy and lower gasoline prices pushed the value of Canadian exports of automotive products to a level of \$20.9 billion, up from \$16.4 in 1982, representing a gain of \$4.5 billion: \$2.2 billion in parts and \$2.3 billion in vehicles.

**Automotive Parts**

The 1983 increase in parts exports followed increases of \$751 million in 1982 and \$746 million in 1981. The 1983 increase, due primarily to the demand for production from Ford and GM's new engine and transmission facilities located in Canada, contributed to a reduction in the Canadian parts deficit by \$477 million compared to 1982.

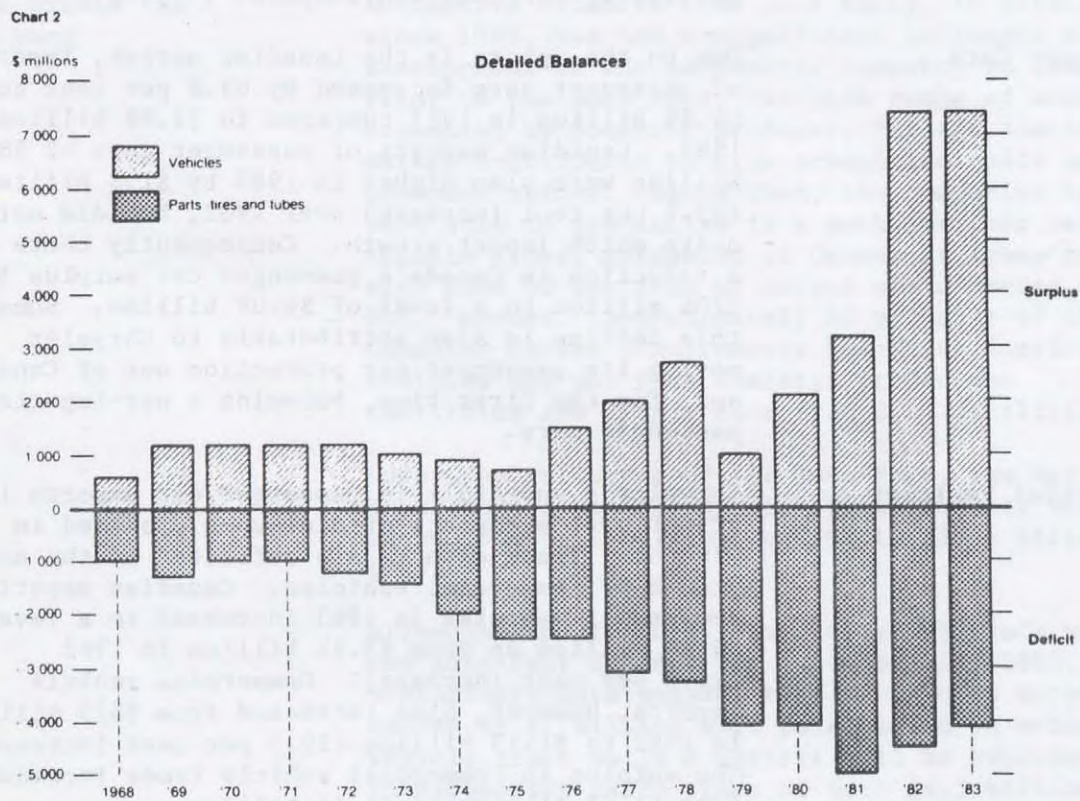
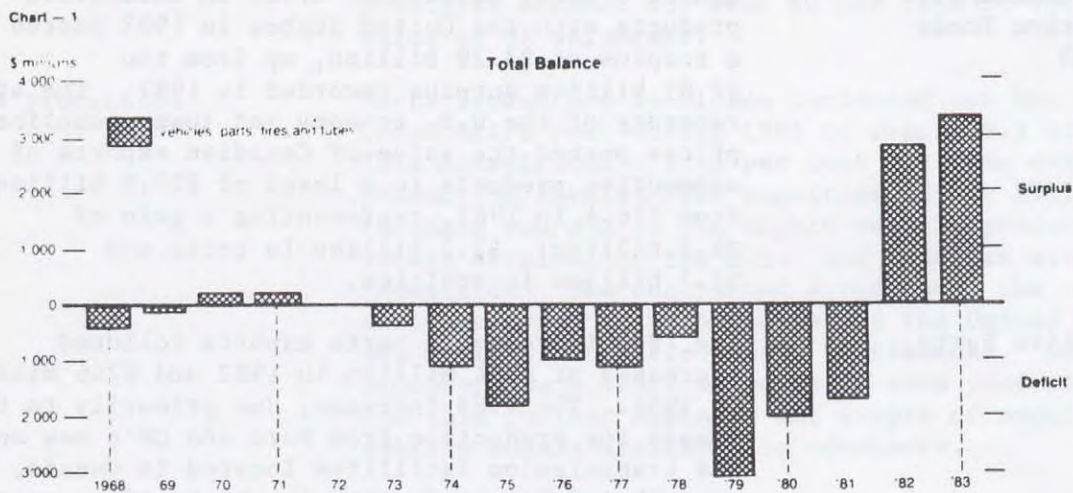
**Passenger Cars**

Due to the upturn in the Canadian market, imports of passenger cars increased by 69.8 per cent to \$4.89 billion in 1983 compared to \$2.88 billion in 1982. Canadian exports of passenger cars of \$8.97 billion were also higher in 1983 by \$1.8 billion (25.1 per cent increase) over 1982, but did not quite match import growth. Consequently there was a reduction in Canada's passenger car surplus by \$206 million to a level of \$4.09 billion. Some of this decline is also attributable to Chrysler moving its passenger car production out of Canada and, for the first time, becoming a net-importer of passenger cars.

**Commercial Vehicles**

Chrysler's shortfall in passenger car exports is offset by its exports of mini-vans produced in Windsor. These exports are reflected in the export growth of commercial vehicles. Canadian exports of commercial vehicles in 1983 increased to a level of \$4.44 billion up from \$3.95 billion in 1982 (12.5 per cent increase). Commercial vehicle imports, however, also increased from \$873 million in 1982 to \$1.13 billion (29.3 per cent increase). The surplus in commercial vehicle trade increased from \$3.07 billion to \$3.31 billion.

**Figure 2**  
**Canada/U.S. Trade in Automotive Products**



Source: Statistics Canada.



## Canada-Overseas Trade in 1983

Canada's deficit in automotive products trade with overseas countries increased to \$1.6 billion in 1983, after deficits of \$647 million in 1982 and \$435 million in 1981.

The \$968 million increase in the 1983 deficit represented a reduction in Canada's exports to overseas countries of \$508 million from 1982. In contrast, Canada's imports increased by \$234 million for parts and \$211 million for cars.

### Automotive Imports

Imports of passenger cars reached a level of \$1.32 billion in 1983 compared to \$1.17 billion in 1982 while commercial vehicle imports rose 22.4 per cent, to \$301 million, up from \$246 million in 1982. Our parts imports more than doubled in 1983 increasing from \$379 million in 1982 to \$613 million in 1983.

Passenger car imports, in addition to those coming from Japan, included a number of entrants from Europe, Korea and Russia. The attractiveness of these imports was increased for consumers as supply constraints caused Japanese imports to command premium prices. Non-Japanese imports included the Czechoslovakian Skoda, the Romanian Dacia, the Russian Lada and the new Korean built Pony.

### Automotive Exports

Canada's exports of assembled vehicles totalled only \$281 million in 1983, down from \$440 million in 1982, a decline of 36.2 per cent. This decline was partly a result of a decision to move the shipment of Completely Knocked Down (CKD) vehicles from St. John, New Brunswick, to Jacksonville, Florida. A weakening of demand for vehicles by less developed countries experiencing balance of payments difficulties was also influential in lowering Canadian vehicle exports abroad. Exports of parts declined by 35.9 per cent in 1983, from \$404 million in 1982 to \$259 million in 1983.

### Trade with Japan

Canada's automotive deficit with Japan in 1983 increased by 21.8 per cent from \$1.21 billion to \$1.48 billion. Vehicle imports from Japan were up by 20.5 per cent, from \$1 055 million in 1982 to \$1 271 million in 1983. Parts imports also increased \$50 million in 1983, up from \$171 million in 1982 to \$221 million, while exports of parts declined from \$10.8 million in 1982 to \$7.7 million in 1983. A large portion of parts imports from Japan were for the aftermarket.

The entire automotive industry in Canada has benefitted from increasing motor vehicle sales. However, the recovery in the automotive industry appears to have been largely fueled by demand pent up during the recession. It is not certain that the rate of increased demand for new vehicles in Canada during 1983 will be sustained over the next few years. Moreover, the industry's good performance in 1983 should not be allowed to overshadow the world automotive market developments which continue to affect the industry's performance and prospects. An understanding of the manner in which such developments impact on the Canadian industry is achieved through an examination of the industry's performance over the past five years.

CHAPTER 2: THE CANADIAN AUTOMOTIVE INDUSTRY 1978-1983

**Synopsis**

Changes over the past five years have made it impossible to assess the performance of the Canadian automotive industry except from a world wide perspective. No single group was left untouched by the internationalization of the industry, the major downturn in the world economy or the broader automotive market developments to be discussed in Chapter Three.

1 | To assure their own futures within the industry's new global context, the vehicle manufacturers undertook record setting investments in their assembly plants so that new generation front wheel drive vehicles incorporating the latest product technology could be produced. These expenditures were made in spite of the downturn in vehicle sales and the deterioration in the ability of the assemblers to finance investment from internal sources. The assemblers also made major adjustments in their organizations and operational procedures in order to improve their competitive position within a domestic market increasingly subject to import penetration.

2 | The adjustments made by the assemblers, especially with respect to production scheduling practices and inventory and quality control procedures, resulted in significant changes to the traditional relationship between the assemblers and their suppliers. In addition to adjusting to this new relationship, companies in the parts sector had to define their own role in the new world order of international sourcing. These challenges occurred at the very moment when the parts sector was feeling the impact of declining vehicle production in Canada and the United States.

3 | The automotive industry's labour force was also affected by the deterioration in automotive market conditions and the structural changes in the industry. Widespread layoffs took place when the demand for automotive products fell off after 1978. As the industry responded to the new competitive conditions through the adoption of new processes and technologies, the labour force faced new skill requirements and hence retraining needs. Organized labour and management addressed these problems through the collective bargaining process and

agreements were negotiated which broke with patterns established in the past.

**The Vehicle  
Manufacturers  
1978-1983**

Production

1978 was a peak production year in Canada with a total output of 1.8 million vehicles comprised of 1 162 000 cars and 656 000 trucks. This peak was followed by four years of decline, reaching a level of 1.2 million units in 1982, a decrease of over 32 per cent. This decline encompassed both car and truck production.

A decline in production also took place in the United States. However, as Table 3 below illustrates, the timing of the U.S. decline did not parallel that in Canada, and there was considerable divergence between the Canadian and American experience with respect to the impact on passenger cars and commercial vehicles.

**TABLE 3**

**Percentage Change over the Previous Year in Passenger Car and  
Commercial Vehicle Production: Canada and the United States  
1978-1983**

YEAR	PASSENGER CARS		COMMERCIAL VEHICLES	
	Canada	U.S.A.	Canada	U.S.A.
1979	-13.3	- 8.2	- 5.0	-17.4
1980	-14.3	-24.3	-18.1	-46.7
1981	- 4.8	1.9	- 0.7	2.9
1982	- 1.5	-18.8	-14.4	-13.7
1983	18.4	33.6	22.2	26.7

Source: Department of Regional Industrial Expansion.

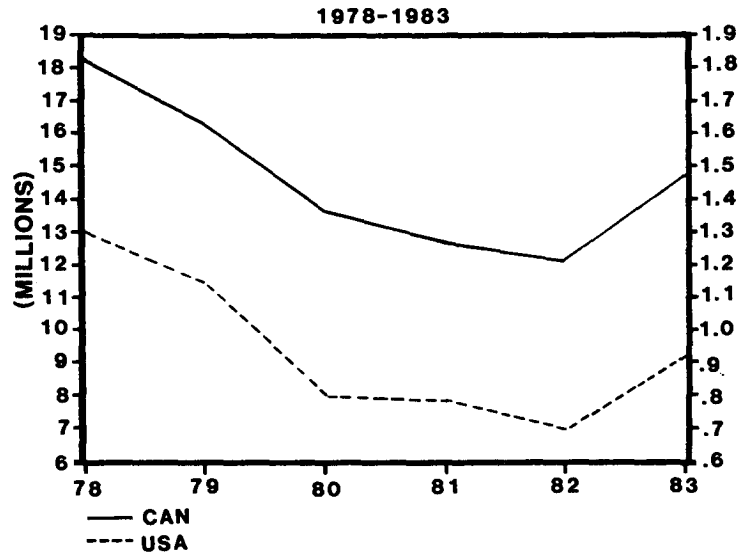
While the fall off in production was severe in both Canada and the United States, it is notable that the permanent plant closings which took place in the U.S. were avoided in Canada. This may partly be explained by examining how the decline in production affected the various types of vehicles produced in the two countries.

Canadian production of automobiles was concentrated in intermediate and full-size models in the 1978-1983 period. These models accounted for 77 per cent of total Canadian production. This product concentration was a matter of concern immediately after the 1979 oil shock as the market share for full size cars was shrinking in both Canada and the United States. However, three factors were working in Canada's favour: the influence of the Auto Pact, the retooling of American production facilities to facilitate the downsizing of American produced models and the role of oil pricing policies in Canada and the United States.

Under the Auto Pact a vehicle manufacturer is eligible to import parts and vehicles duty free only if the manufacturer achieves a certain level of production in Canada in relation to sales in Canada. Companies with passenger car assembly plants in Canada had to keep them operating if they were to continue to receive Auto Pact benefits. In the case of GM, its volume of sales in Canada required that two passenger car plants remain in operation, although at reduced levels of output. Similar circumstances prevailed in the production of light duty trucks where the peak to valley decline in Canada was nowhere near as great as it was in the United States.

Another major factor working in Canada's favour was that while U.S. plants were being closed for conversion to new generation vehicles, the companies still required capacity for existing model lines. For example, the Ford Motor Company's Oakville plant became the sole source in North America for the Ford LTD. After January, 1982, this second factor became of special benefit to Canada as a moderation in U.S. gasoline prices was influential in creating renewed consumer demand for large cars in the United States.

**FIGURE 3**  
**Vehicle Production in Canada and the United States**  
**1978-1983**

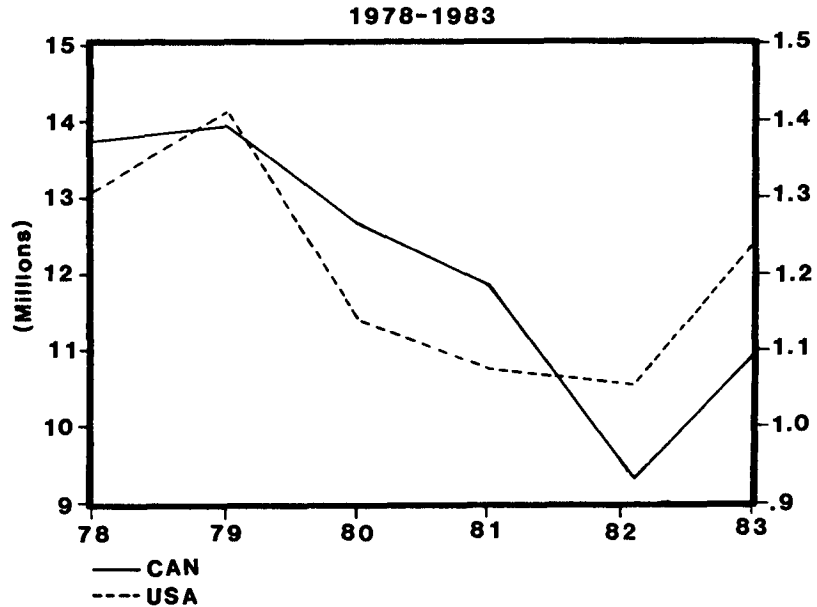


Note: Left scale U.S. Production;  
Right scale Canadian Production.

**Markets and  
Competitive Position**

In 1978-1979 sales of motor vehicles in Canada reached their highest level, with passenger car sales exceeding the one million mark. Both the rising fuel prices resulting from the 1979 oil price shock and the general economic recession which followed contributed to a market decline which began in 1980 and accelerated sharply in 1982. The decline in car sales from the 1979 peak to the trough of 1982 was 29 per cent. The level reached in 1982 was the lowest since 1970 and was 24 per cent below the average for the period.

**FIGURE 4**  
**Vehicle Sales in Canada and the United States**  
**1978-1983**



Note: Left scale U.S. Sales;  
Right scale Canadian Sales.

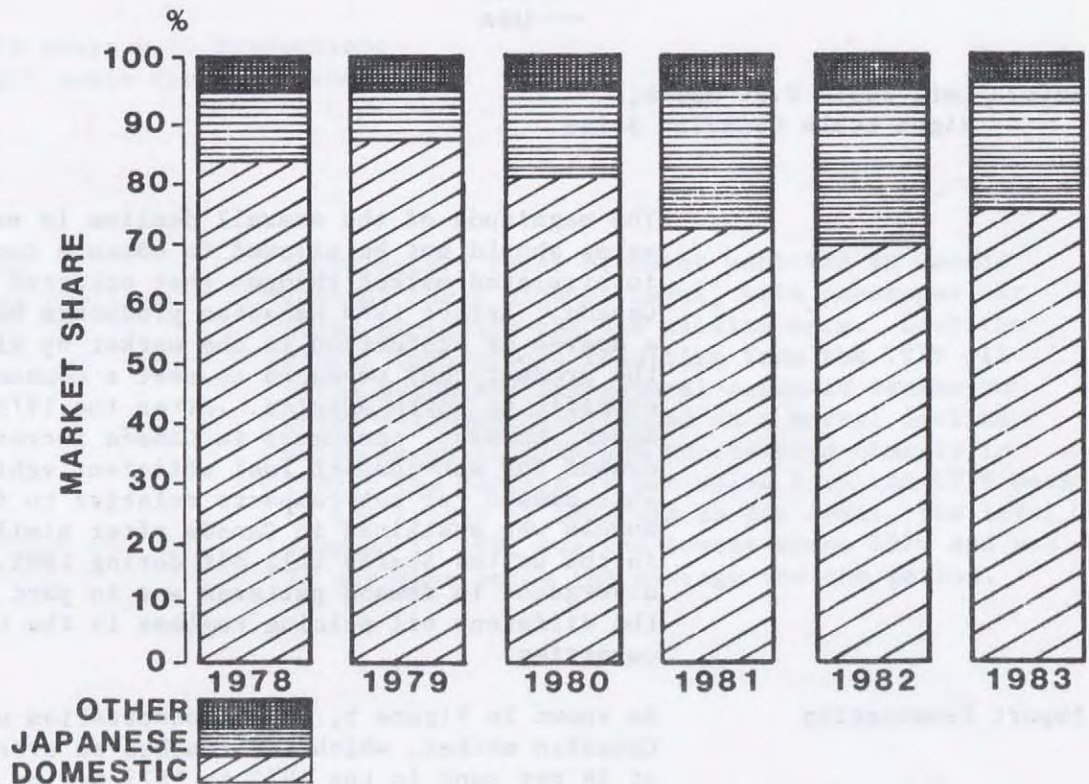
The magnitude of the overall decline in vehicle sales should not be allowed to obscure two interrelated market changes that occurred within Canada. Before 1979 Canadian producers had enjoyed a degree of protection in the market by virtue of the product they produced to meet a consumer demand specific to North America. After the 1979 oil shock, however, consumers in Canada increased their demand for sub-compact fuel efficient vehicles. This demand for sub-compacts relative to full size models was sustained in Canada after similar demand in the United States fell off during 1982. The divergence in demand patterns was in part due to the different oil pricing regimes in the two countries.

#### Import Penetration

As shown in Figure 5, import penetration of the Canadian market, which had reached an average level of 24 per cent in the 1970 to 1973 period, fell to a low of 13.9 per cent in 1979. A sharp increase was evident in 1980 when the penetration rate rose to 20.5 per cent. Further increases occurred in

the next two years and, by the end of 1982, the rate had risen to a high of 31.4 per cent. The Canadian vehicle producers, who had total passenger car sales of 864 000 in 1979, saw their volume decrease by 43 per cent to a low of 489 000 units in 1982 while their market share relative to total car sales decreased from 86 per cent to 68.6 per cent. The decline in market share occurred despite the export arrangements with the Japanese in place since April 1st of 1981. Under these arrangements Japan limited exports of passenger cars into the Canadian market to a level of 174 213 units for the period April 1, 1981 to March 31, 1982. For the period January 1, 1983 to March 31, 1984 the agreed export level was 202 600. The Japanese have not exceeded these levels.

**Figure 5**  
**Import and Domestic Shares of the Canadian Passenger Car Market**  
**1978-1983**



Source: Department of Regional Industrial Expansion.



## The Commercial Vehicle Market

Developments in the commercial vehicle market were in many ways similar to those in the passenger car market. The Canadian market peaked at 393 000 units in 1979 and declined to 207 000 units in 1982, a decrease of 56 per cent. Although all segments of the commercial vehicle market were affected, the heavy duty truck sector was particularly hard hit. Unit sales of extra heavy duty trucks in Canada declined from 28 000 in 1979 to 8 000 in 1982.

As consumers became more conscious of fuel economy, there was a noticeable decline in the sales of conventional pick-up trucks and vans in favour of small or mini-trucks. With one exception - Volkswagen - producers in North America did not manufacture mini-trucks until 1982. Chrysler, Ford and General Motors had all been offering mini-trucks but these were produced in Japan and marketed in North America under North American name plates.

Import penetration in the truck market, which reached a high of 8.3 per cent in 1972, averaged 4.2 per cent in the 1978-1980 period. This rose sharply to 12.5 per cent in 1981 and 19.6 per cent in 1982. Japanese produced mini-trucks have accounted for over 90 per cent of the offshore truck imports into Canada since 1975. The introduction of North American produced mini-trucks in 1982 is expected to affect Japanese truck sales to Canada in future years.

The Canadian producers were therefore confronted with significant adjustments in terms of reduced volumes, meeting offshore competition and, as changes in consumer demand were felt, closing gaps in their product lines.

## Financial Performance

The motor vehicle manufacturers in Canada suffered a net loss of \$168 million between 1978 and 1982. 1978 and 1979 were profitable years for the industry as a whole although Chrysler recorded net losses in both years. After 1979, the situation worsened for all producers until 1983.

TABLE 4

**Financial Performance of the Four Major Assemblers in Canada  
1978-1983 (\$ millions)**

YEAR	NET SALES	NET INCOME (LOSS)	NET INCOME (LOSS) AS % OF SALES	CAPITAL		LONG TERM DEBT
				EXPENDITURES PLANT AND EQUIPMENT*	WORKING CAPITAL	
1978	17 784	209	1.18%	445	847	55
1979	19 635	192	0.98%	586	700	164
1980	18 322	(217)	(1.18%)	1 170	533	709
1981	20 590	(168)	(0.82%)	1 288	242	1 363
1982	21 014	(184)	(0.87%)	606	(735)	595
1983	27 413	946	3.87%	882	313	407

\* Includes special tooling for all four companies and investments overseas by Ford of Canada.

Source: Department of Regional Industrial Expansion.

The Canadian companies have historically relied on the sales of larger cars to generate profits. Their pricing policies were such that returns were marginal on sub-compacts and increased in relation to vehicle size. With the rapid decline of the large car market in Canada after 1980 and in the United States between 1979 and 1982, profits were seriously eroded. This coincided with the need for a major investment to produce downsized and more fuel efficient vehicles. This situation placed considerable strain on the financial resources of the companies. Nevertheless, investment expenditures amounted to over \$4 billion in the 1978-1982 period. Prior to 1979, the industry had relied predominantly on internal sources for investment funds. However, as the industry's working capital decreased after 1980, a new reliance was placed on borrowing the needed capital. As a result, long term debt, which in 1978 had amounted to \$55 million, rose to a peak of \$1.4 billion in 1981 before declining to \$407 million by the end of 1983.

Of the four major manufacturers in Canada, Chrysler faced the most serious financial problems. Loan guarantees by the United States' Government and an agreement between the company and the Canadian Government, together with certain operational and organizational changes instituted in co-operation

with organized labour, enabled Chrysler to survive.

The financial results for the Canadian producers tell a story that is very important in the Canadian context but must also be viewed in the context of the consolidated results of their parent companies. Net profits during the 1978-1982 period for the parent companies of Canada's "Big 4" amounted to over \$3.4 billion while investment in the same period was over \$60 billion.

The need to invest at record levels in a period of losses has weakened the financial strength of the industry. Long term debt to finance investment programs had only been used sparingly in the past, but was heavily relied upon in this period. The industry was left with a substantial interest burden for future years. By the end of 1982 though, a great deal had been accomplished by the industry through its investment program. Breakeven levels had been sharply reduced and new competitive products were on the market. American gasoline prices had shown a further tendency to decline thus continuing to strengthen demand in the United States for large cars, many of which were being assembled in Canada.

The Canadian vehicle assembly industry did not stand still through this period even though the volume of output was sharply reduced. Two assembly plants were converted to produce new generation front wheel drive vehicles while plans were made to convert three others. Extensive plant modernization programs were undertaken introducing the latest process technologies. Intimately connected with these modernization programs were certain changes in the operational procedures of the assemblers. As will be discussed in detail shortly, these had important implications for suppliers to the vehicle manufacturers.

**Automotive Parts  
Manufacturers  
1978-1983**

**Production**

Production in the parts sector, as measured by the value of shipments, fell by 21 per cent between 1978 and 1980 to reach a level of \$4 billion. After 1980, production increased in both nominal and real terms so that by 1982 nominal production

value had surpassed the previous peak year of 1978. Approximately \$6.6 billion worth of goods was produced by the sector during 1983 versus \$5.1 billion during 1978.

**TABLE 5**

**Canadian Motor Vehicle Parts and Accessories Shipments (\$ millions)  
1978-1983**

Year	Value of Shipments	% Change over Previous Year
1978	5 119.7	
1979	4 497.4	(12.2)
1980	4 034.2	(17.6)
1981	4 879.3	20.9
1982	5 538.9	13.5
1983*	6 552.1	18.3

\* Preliminary

Source: Statistics Canada.

**Parts Demand**

Approximately 80 per cent of Canadian parts production is exported to the United States with most of the remainder being consumed domestically. This results in the level of Canadian original equipment production being greatly influenced by U.S. vehicle production levels and models, the spending behaviour and vehicle preferences of American consumers and the general economic conditions prevailing in the United States. American vehicle production fell by 5.9 million units or 45.8 per cent between 1978 and 1982 and this decline was felt by Canadian parts producers. Although Table 5 does show that total Canadian parts production increased by 20 per cent in 1981 over 1980, a large part of this recovery is accounted for by the opening of a new engine plant by Ford and a new transmission facility by GM during 1981. Significant production gains by the independent parts producers were not experienced until late 1982.

Very few Canadian companies produce original equipment or aftermarket parts for vehicles produced overseas and imported to Canada. As a

result, the increased penetration of the North American marketplace by foreign manufacturers has been of little or no benefit to the parts industry.

Parts Sourcing by  
the Assemblers

Between 1979 and 1983, the ability of the Canadian parts industry to supply the market has increasingly rested on its ability to satisfy the new sourcing criteria set out by the assemblers. It has previously been pointed out that the increased competition faced by the assemblers impelled them to undertake modernization programs. Major elements of these programs, aside from investments in new plant and equipment, include new production scheduling practices and inventory and quality control procedures. These new practices and procedures necessarily require both the suppliers and the assemblers to place greater emphasis on communicating to one another their business needs and expectations.

The traditional sourcing pattern for the assemblers prior to 1979 had been to purchase parts from a large number of firms. But now the argument was successfully made that multiple sourcing increased monitoring costs and the risk of supply interruptions. The assemblers cut back on the number of suppliers while, at the same time, they entered into long-term purchasing contracts with selected suppliers.

The selected suppliers were those who could successfully adjust to such new operating procedures as just-in-time production. The objective of just-in-time production is to reduce inventory and hence costs in the assembly plants by ensuring a continuous feed of materials. This procedure places a new discipline on suppliers in the spheres of quantities, product quality and transportation. The assemblers expect to receive from their suppliers the precise amount of materials ordered. With respect to quality, component defects must be cut to a minimum because all work becomes work in progress. Therefore, suppliers are expected to introduce such quality control techniques as statistical process control. Finally, in many of the purchasing agreements between assemblers and suppliers, the onus of ensuring timely delivery of parts is placed on the suppliers.

Technological Change

Another important supply side factor for the parts industry was the rapid pace of technological change. Technological developments occurred in both processes and products. For example, the assemblers increasingly relied on the parts industry to perform component design work. This development was made feasible through the use of Computer-Aided-Design and Computer-Aided-Manufacturing (CAD/CAM) technology. Parts suppliers who used to obtain sourcing contracts on a "make to drawing" basis had to plan for the introduction of this new process technology. In the near future the auto makers will be providing design information to many of their suppliers primarily in the form of digitized data.

**Figure 6**  
**Computer-Aided Design/Computer-Aided Manufacturing Systems**

THE MANUFACTURING PROCESS CAN BE DIVIDED INTO PLANNING AND OPERATING ACTIVITIES

Conventional planning activities are in four areas:

- . Product Design - creates a blueprint
- . Tool Engineering - uses the blueprint to create machine tools
- . Process Design - uses blueprints and tools in designing a manufacturing process
- . Scheduling - controls the manufacturing process

Operating activities flow through five phases:

- . Raw Materials
- . Preparatory Functions (e.g., cleaning)
- . Basic Manufacturing
- . Supplementary Functions (e.g., testing)
- . Finished Product

COMPUTER-AIDED MANUFACTURE PROVIDES THE ELECTRONIC COMMUNICATION LINKS NECESSARY TO TIE THE SYSTEM TOGETHER

New part designs are created and stored at a computerized graphics terminal

The designs are transmitted electronically to the tool department as the basis for new tool design

The product designs are also transmitted to the process design area, where cutting paths and manufacturing sequences are determined

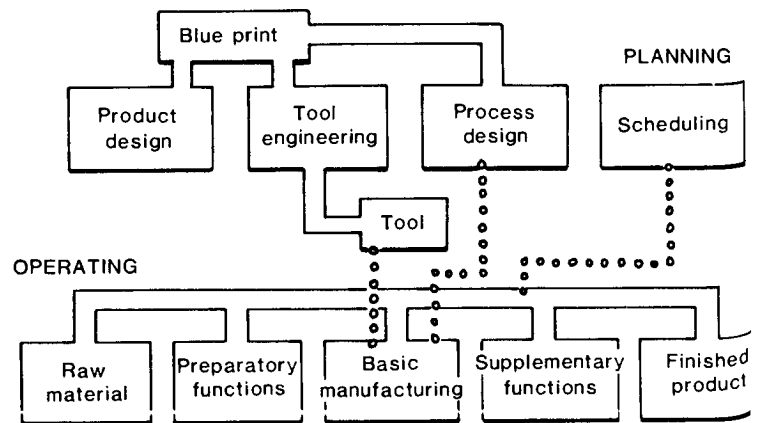
Finally, the scheduling system generates machine tool commands in the computer-controlled manufacturing process

COMPUTER-AIDED DESIGN INTRODUCES COMPUTER SUPPORT TO THE FIRST PHASE OF THE PLANNING FUNCTION: PRODUCT DESIGN

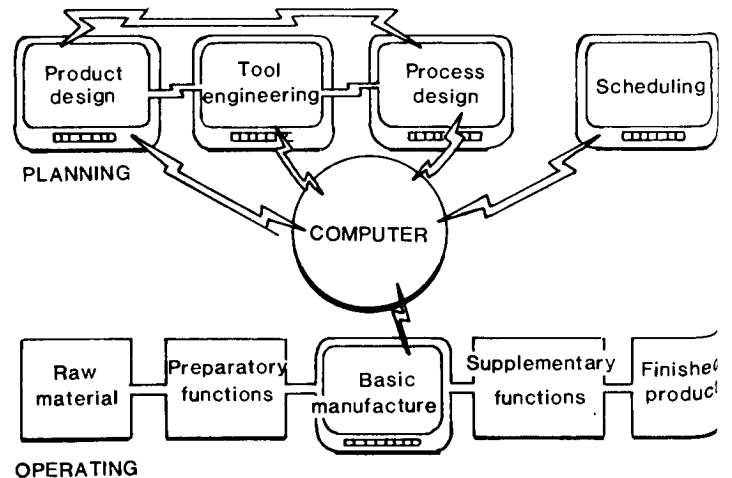
Use of CAD technology results in significant benefits within the Product Design activity cell, such as:

- Improved Productivity - engineers spend less time creating and revising product designs
- Improved Design Quality - design analysis is quicker, easier and cheaper with CAD
- Reduced Turnaround Time - customer response time is shortened through faster design capability

**CONVENTIONAL MANUFACTURING SYSTEM**



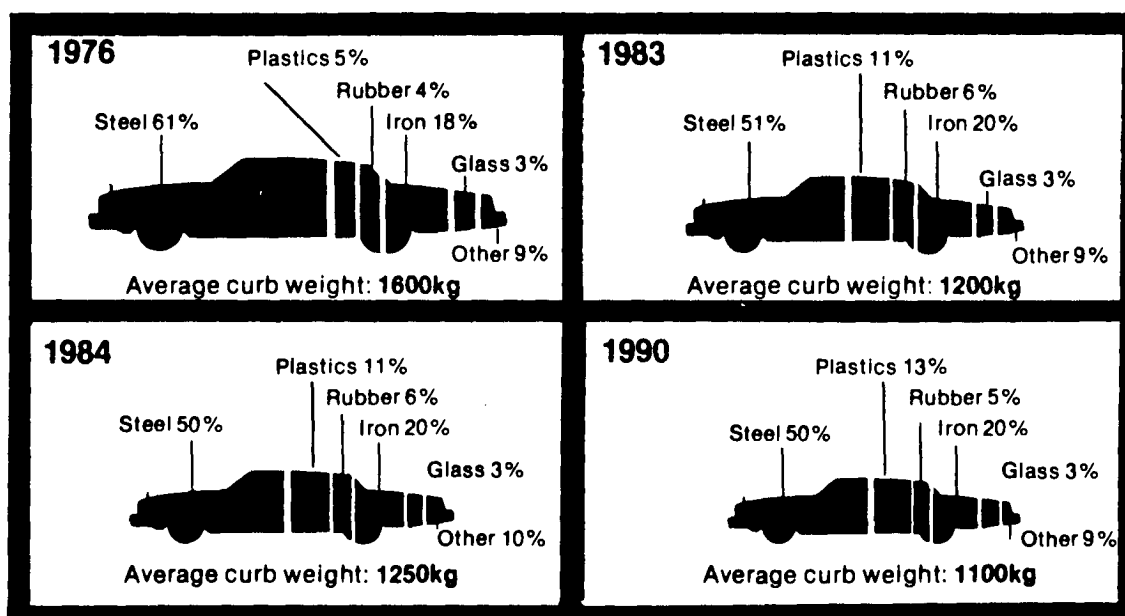
**COMPUTER AIDED MANUFACTURING SYSTEM**



### Material Changes

As a result of vehicle downsizing and the requirement of fuel efficiency, many changes have taken place in the type of materials required for automotive components and the overall complexity of the components. Specific opportunities have emerged for parts firms in areas such as aluminum castings, electronic components, motors and systems, and plastics and plastic components.

**Figure 7**  
**The Composite North American Manufactured Car**



Source: APMA & Plastics Business.

### Markets and Competitive Position

Important linkages exist between the original equipment market and the aftermarket. The production pattern in the aftermarket displays linkages with the original equipment market to the extent that in those areas where Canada has substantial original equipment capacity, it also experiences trade surpluses in the aftermarket. At the same time, areas with little or no original equipment capacity are also the areas in which there is a large aftermarket trade deficit. Two implications of this linkage should be noted: first, many manufacturers produce for both the

original equipment and aftermarkets; second, Canada's ability to be internationally competitive in the aftermarket is dependent on its ability to be competitive in the original equipment market.

The introduction of the Auto Pact in 1965 opened up a larger North American market for Canadian original equipment parts. Aftermarket producers, while being excluded from the free trade provisions of the Pact, were in a good position to take advantage of this opportunity. Many were able to gain access to the volumes provided in the original equipment market. These large volumes acted as the catalyst which enabled parts manufacturers to produce competitively. However, because of the extremely competitive pricing of original equipment products, the companies also became dependent on the aftermarket where profit margins were higher. For a large number of aftermarket producers, though not all, the ability to service both markets guaranteed their survival in Canada.

While the original equipment market was extremely competitive prior to 1978, firms serving the market after 1978 found conditions even more competitive as a result of the trend towards global sourcing of parts by the assemblers. During this period, the assemblers announced their intention to rely less on in-house production of automotive parts in order to cut costs and improve productivity. If this shift towards out-sourcing had occurred prior to 1978, the Canadian parts sector would have benefitted because of the effective protection enjoyed under the unique conditions of the North American marketplace. However, after 1978 the implications of the trend towards globally integrated sourcing by the assemblers were beginning to emerge.

Globally integrated sourcing means the parts industry must compete on the world market for new business. Globally integrated sourcing per se is not detrimental to the Canadian parts industry. Opportunities do exist for the industry to increase exports outside of North America and fit into a "world car component scenario". However, many of the smaller Canadian producers are experiencing difficulty in defining their role in the new world order of parts sourcing.



Financial Position

Large firms in the parts sector were able to continue investment programs during the recession, if at a temporarily reduced level, while most small firms had problems raising capital. Small firms in the sector, which relied predominantly on bank financing, came under financial pressure as cash flows tightened and interest rate burdens increased after 1980. Thus, at the very moment when small parts firms needed to make investments in new products and manufacturing processes, they were least able to do so. In this context the federal government announced, in January of 1982, that the automotive parts sector would be eligible for special assistance under the Industry and Labour Adjustment Program. By 1983 almost \$23 million had been allocated to the sector to stimulate innovation, facilitate the modernization or conversion of plant and equipment and to assist companies to undertake major incremental projects.

Table 6 below shows capital and repair expenditures made by the automotive parts industry in Canada over the period 1978-1983:

TABLE 6

**Capital and Repair Expenditures - Automotive Parts Sector**  
 (\$ millions)  
 1978-1983

Year	New Capital Expenditures	Repair Expenditures	Total
1978	203.9	139.3	343.2
1979	330.9	167.9	498.8
1980	780.9	193.7	974.6
1981	666.5	187.2	853.7
1982	188.5	154.1	342.6
1983	164.0	194.4	358.4

Source: Statistics Canada.

From 1979 through 1981 over 50 per cent of total capital expenditures were made by the major vehicle manufacturers in their in-house parts operations.

Major investments were made during 1980 and 1981 by two of the assemblers in new engine and transmission plants in Windsor, Ontario. Nevertheless, although investment by independent parts producers fell to approximately \$160 million annually between 1980 and 1982, by 1982 that level of investment represented over 40 per cent of total capital and repair expenditures in the sector.

### **The Tire Industry**

In Canada there are seven tire companies producing over 20 million tires each year from 12 plants. With the exception of one company, which is Canadian-owned, all of the producers are foreign-owned and controlled. The buying side of the tire industry is equally concentrated, with approximately one-third of all passenger car tires produced in Canada being purchased by the vehicle manufacturers.

As was the case in the automotive parts sector, production trends in the tire industry reflected the downturn in North American vehicle sales. However, the fall-off in domestic sales cannot be attributed solely to the downturn in vehicle sales. Longer lasting tires and the effect of reduced vehicle weight due to downsizing were influential.

As a result of the need of rubber companies to maintain market share in the face of increasing world tire capacity, pricing of the world tire industry's products was extremely competitive after 1978. Competitive pricing, together with rapidly rising costs due to the high use of oil based materials, resulted in many of the multinational tire companies experiencing poor profit performance. This served as one incentive for parent companies to continue to reexamine the operations of their Canadian subsidiaries with a view towards rationalization of production.

### **Tariff Reductions**

The high level of protection historically afforded the Canadian tire industry contributed significantly to its growth and development. The Canadian tariff on tires, which was 22.5 per cent between 1951 and 1967, has been steadily reduced over the past sixteen years. The statutory tariff rate was 17.5 per cent in 1979. Scheduled GATT agreed reductions of the Canadian tariff resulted in the tariff being lowered to 16.8 per cent in 1980, 15.7 per cent in 1981, 14.8 per cent in 1982 and 13.9 per cent in 1983. The tariff

reductions are leading the multinationals to examine the possibility of dedicated production facilities in Canada for a more limited number of tire sizes and types and in a manner fully rationalized with their worldwide operations.

#### Rationalization of the Tire Industry

This movement towards rationalization has been encouraged by increased market penetration by offshore multinationals. The traditional North American vehicle with its large wheels had called for a tire that was manufactured only in North America, effectively preserving the market for North American manufacturers. The European and Japanese tire markets had previously converted to radial tires. The increasing market share of small cars, however, opened the North American market up to world competition. The world tire market therefore became homogenous with the exception of some third world countries. The multinational tire companies are now viewing their North American production facilities within a new global context. Because Canadian plants are more specialized in shorter run production volumes, Canadian subsidiaries are becoming the source of many less popular tire models and sizes while foreign sister plants specialize in the fewer but more popular tire sizes.

#### The Dealerships

A strong dealership network is vital to the success and health of the automotive industry. The dealer is the representative of the manufacturers in the field and normally is the customer's only contact with the companies.

#### Regional Distribution

Domestic dealerships account for approximately 65 per cent of all dealerships in Ontario, Québec and Atlantic Canada. In the Prairie provinces they account for 83 per cent of all dealerships. A significant variation in this pattern of domestic dealership dominance is British Columbia, where import dealerships represent 51.4 per cent of total dealerships.

Data on Canadian dealerships is incomplete for years prior to 1981. However, it is known that in 1981 approximately 3 880 new car dealerships were operating in Canada. The number of dealerships declined by 6.5 per cent to 3 628 during 1982 and was down by a further 6 per cent the following year. The decline in the number of dealerships is attributable to the deterioration of the Canadian

retail automobile market since 1979. Both domestic and imported vehicle dealerships were affected.

**TABLE 7**  
**Automotive Dealerships in Canada**  
**1981-1983**

Year	Number of Domestic Vehicle Dealerships	Number of Imported Vehicle Dealerships	Total Dealerships	Total Employment
1981	2 765	1 115	3 880	116 400
1982	2 455	1 173	3 628	97 956
1983	2 385	1 027	3 412	79 780

Source: Federation of Automobile Dealer Associations of Canada.

Dealerships in Canada sold over \$14 billion worth of cars and trucks during 1982. This represented a 12 per cent decline from a 1981 total sales of \$16.6 billion. Ontario remained the largest retail sales market in Canada during 1982, with 36 per cent of all retail sales being made in that province. Québec represented the second largest market (20.6 per cent) followed by Alberta (13.8 per cent) and British Columbia (11.1 per cent).

**Dealership Performance  
in Major Trading Areas**

Statistics Canada retail sales data for selected metropolitan census regions provide an indication of dealership performance in major trading market areas. Table 8 below shows that in 1980-1981, retail sales grew in all metro areas at a rate ranging from 2.9 per cent in Winnipeg to 19.9 per cent in Toronto. After 1981, retail sales of motor vehicles fell in all metro areas with the single exception of Winnipeg. Sales fell by almost 28 per cent in Vancouver but only by approximately 9 per cent in Toronto and Montréal during 1982. The especially sharp drop-off in Vancouver sales was due both to the effects of the world recession on British Columbia's export dependent economy and the impact of export arrangements on the availability of imported cars.

**TABLE 8**  
**New Motor Vehicle Retail Sales in Census Metropolitan Areas**  
**1980-1982 (\$000's)**

Year	Toronto	Montréal	Winnipeg	Vancouver
1980	1 792 612	1 545 995	338 192	1 129 544
1981	2 149 510	1 565 928	347 953	1 200 538
1982	1 938 132	1 439 765	375 773	868 634
1983	2 354 533	1 825 747	382 622	918 771

Source: Statistics Canada.

Between 1979 and 1982 domestic dealerships lost ground to import dealerships in all provinces. Import penetration was felt most strongly in the province of Quebec. New imported vehicle sales in that province increased from 13 per cent of total sales in 1979 to 42 per cent of total sales in 1982. Domestic dealerships increased their sales relative to import dealerships in all provinces during 1983. The proportion of imported vehicle sales to domestic vehicle sales in 1983 ranged from 41.6 per cent in B.C. to 15.5 per cent in Saskatchewan.

**The Labour Force of the Canadian Automotive Industry**

Vehicle assembly employment, which in 1964 had totalled 38 700, rose steadily to 45 600 in 1970 and continued that climb until it reached a peak of 67 400 in 1979. Following declines in sales and production, employment fell sharply to a low of 51 400 in 1982. For the workers in the assembly sector the disruptions were severe and their earnings, although stabilized to some extent by supplementary unemployment benefits, were by no means secure. A similar situation of declining employment was felt by the automotive parts industry.

In 1978 over 59 000 persons were working in the Canadian automotive parts industry. Employment in the automotive parts sector declined by 4.4 per cent in 1979 and 16.1 per cent in 1980. The employment decline was reversed during 1981 when 51 900 persons were employed. However, a further decline in employment levels occurred during 1981-1982 as a result of the deepening recession.

**TABLE 9**  
**Employment in the Canadian Automotive Industry by Sector**  
**1978-1983**

Year	Vehicle Manufacturers	Automotive Parts and Accessories
1978	65 900	59 000
1979	67 400	56 400
1980	56 800	47 300
1981	55 500	51 900
1982	51 400	47 500
1983	55 900	59 700

Source: Statistics Canada.

Figures based on average employment over each year.

Employment figures alone give no indication of the extent to which the available supply of labour was being used between 1978 and 1982. Unemployment figures for the various automotive sectors are not available, but there is little doubt that workers leaving the industry at this time had difficulty finding alternative work because of the high unemployment rates being experienced across all manufacturing industries.

#### Industrial Relations

Reductions in the workforce of the automotive industry affected not only the employees laid off but also their unions and the conduct of negotiations. During the period 1978-1982 the U.A.W. faced a membership decline of 25 per cent. This was the largest decline experienced by any major union in Canada.

Collective agreements concluded between the U.A.W. and management differed from the traditional patterns established in periods of prosperity. Prior to 1980, Canadian economic conditions were not central to the conduct of Canadian negotiations. The negotiating agenda was implicitly set down during the conduct of U.S. negotiations. The contracts traditionally contained a three percent per annum "productivity" increase and a series of quarterly Cost of Living Adjustments calculated using a combined U.S.-Canada price index. After 1980, agreements were concluded in Canada which recognized unique Canadian economic conditions. For example, COLA clauses in Canadian contracts came to be based on the Canadian rate of

inflation. Poor labour market conditions in the automotive industry focused the attention of governments, industry and labour on human resource policies and industrial relations. It was realized that insufficient study had been given to the technological changes taking place in the industry, the level and mix of skills that would be required, and the extent to which adequately trained technical personnel would be available to meet the demands of a much more complex and computerized production system.

**CHAPTER 3: THE INTERNATIONAL ENVIRONMENT**

**Synopsis**

The performance of the Canadian automotive industry in the recent past suggests that the industry's fortunes are increasingly tied to economic and political events taking place outside the nation's boundaries. It is evident that, since 1973, the structure of automotive demand and supply worldwide has been altered and automotive production, consumption and capital investment have been diffused. The events which brought about the changes included the oil crises of 1973 and 1979, the consequent rise in gasoline, material and vehicle prices, the increasing significance of world automotive trade to major producing nations and the erection of trade barriers by industrialized and developing countries. These events resulted in a shift in consumer demand, a sharp decline in total world auto sales and the creation of excess vehicle production capacity. The industry responded by viewing its corporate activities and future prospects in global terms.

**Market Divergence  
1945-1973**

The postwar period through to 1973 saw continued growth in the worldwide demand for new motor vehicles. The 1960s were a particularly strong period of sales growth within the OECD area where the annual rate of increase in new car demand was 6.1 per cent. The primary forces behind this growth were rising real incomes in all OECD countries and the emergence of mass consumption in Europe and Japan. Within the OECD area, however, there were important regional differences in the type of vehicles demanded by consumers and supplied by producers.

Two distinct automotive markets evolved after 1945. A complex system of multinational trade and production grew up outside of North America to meet the growing demand for fuel efficient small and medium-sized vehicles. Fuel economy was more important to the Japanese and Europeans because of their high domestic fuel prices and lower per capita income. In North America, large and less fuel efficient vehicles were produced to meet a demand quite different from that in offshore markets. North American fuel prices were roughly half the world price prior to 1973 and this fact, combined with North America's higher per capita income, led consumers to demand a type of vehicle



which only the North American producers could afford to make in economic quantities. In effect, producers in the North American regional market were afforded a form of protection from offshore automotive producers. //

#### Industry Structure

The structure of the industry prior to 1973 reflected the importance of such regional boundaries. The industry's production base in North America, for example, was isolated from offshore automotive market trends and was responsive to such internal policy initiatives as the Auto Pact which allowed for the rationalization of the industry along continental lines.

In general then, automotive plants in North America, Europe and Japan sourced necessary supplies within the boundaries of their own regional trading areas and produced for those areas. This pattern was to undergo fundamental change after 1973 as major economic and political events altered the structure of automotive demand and supply worldwide.

#### Market Saturation and the 1st Oil Shock 1973-1978

Within the OECD area automobile sales grew at an annual rate of only 1.6 per cent during the 1970s. This slower growth rate may be traced to the ramifications of the oil shocks during the decade and, perhaps more fundamentally, to the strengthening trend towards market saturation in all OECD countries.

The automotive sector is affected on both the demand and supply sides by changes in the price and availability of oil. The automotive manufacturing process is dependent on oil and so is the final product. Consequently, the first oil shock of 1973 affected the world automotive industry in terms of costs and consumer preferences. The shift in consumer preferences towards smaller and more fuel efficient vehicles was most pronounced in the North American market. As previously mentioned, small car dominance was already well established in Europe by 1973. The burden of adjustment fell more heavily on producers in North America than the relatively well positioned producers in Europe and Japan. The burden was particularly onerous for North American producers because, at this time, the permanence of the shift in consumer preferences was unclear. Indeed, after the 1974 recession it appeared that Canadian and American consumers were

returning to their traditional purchasing patterns.

European and Japanese producers were able to expand their sales after 1973 in the lower price range of the North American sub-compact segment. The domestic producers, however, were unable to immediately capitalize on the growth in the small car market. Nevertheless, the increase in this penetration did not appear as a matter of serious concern because of the overall healthy market for all passenger cars and the uncertainty surrounding the permanence of the shift to small cars. The second oil shock of 1979 altered this perception.

Apart from cyclical economic disturbances and the 1973 oil shock, certain structural features of OECD automotive markets were influencing demand growth. The most important of these features was the general tendency towards market saturation. Market growth was increasingly a function of replacement demand rather than new motor vehicle demand. Therefore, despite healthy automotive market conditions between 1975 and 1979, it was evident that a return to the 1960s pattern of continual and rapid increases in sales would be unlikely.

**Market Penetration,  
Convergence and the  
2nd Oil Shock  
1978 - 1983**

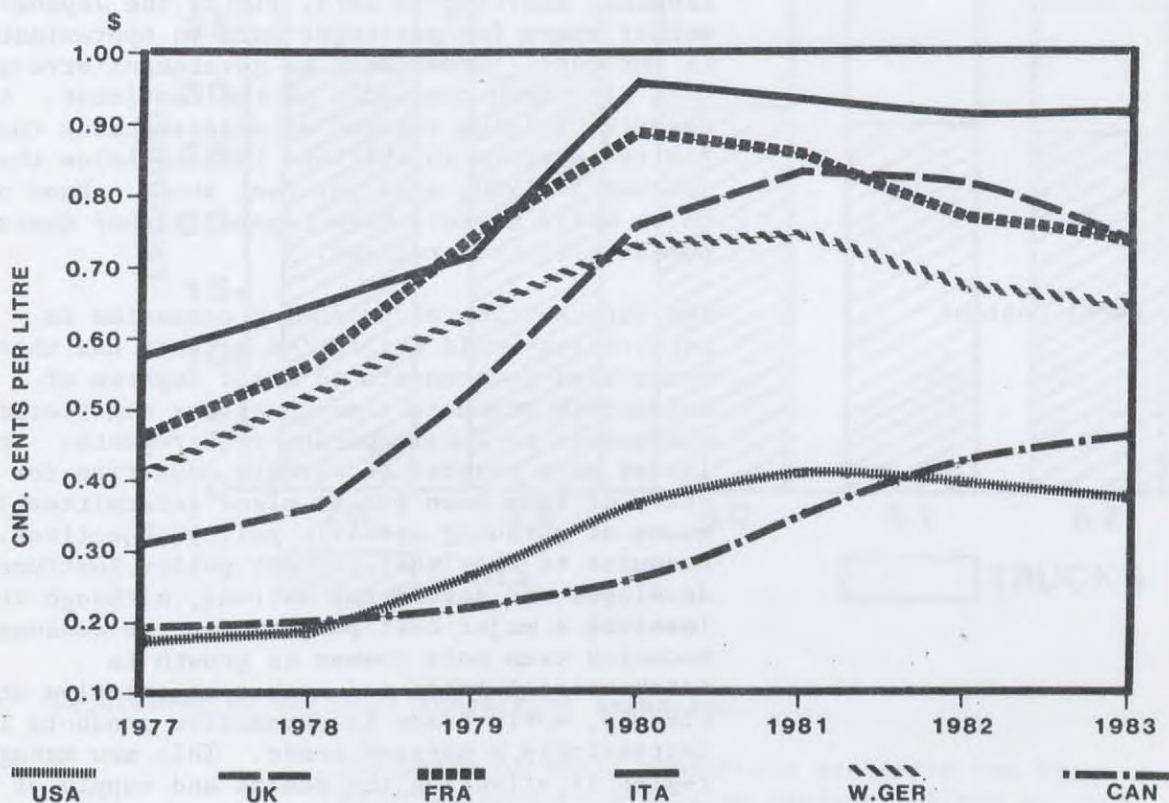
World motor vehicle demand peaked in 1978 at a level of 41.7 million units, declining 10 per cent by 1981 and dropping a further 3 per cent in 1982 to 36 million units. Yet, in this same period, world trade in motor vehicles grew by approximately 30 per cent with 90 per cent of this export growth emanating from Japan. In 1971 the Japanese share of world vehicle exports had been 42 per cent but this had risen to over 70 per cent by 1982. The increase in the Japanese share is partly accounted for by the fact that several European and North American producers had established production facilities in overseas locations and thereby dropped out of the world trade picture. Although the increase in the Japanese trade share is somewhat exaggerated because of this, it is evident that the health of the Japanese automotive industry rested on its ability to sell in the international market and remain a low cost producer.

**Regulation & Gasoline  
Prices**

The North American industry, under financial pressure to meet safety, environmental and fuel economy standards for their larger cars, were placed under further pressure to produce smaller

and more fuel efficient vehicles as a result of the 1979 oil price shock. The majority of the Japanese companies already had available low cost and high quality small cars. Motor vehicle sales in North America declined by 32 per cent between 1978 and 1982, but the decline in North American produced vehicles sales was 40 per cent. In contrast, sales of Japanese vehicles in North America grew by 29 per cent, with their North American market share rising from 11 per cent in 1978 to 21 per cent in 1982. In the passenger car market in 1982, Japanese penetration was 25 per cent in Canada and 22.6 per cent in the U.S. The rate of penetration would have been higher without the voluntary limitations imposed by Japan on its exports to both countries.

**Figure 8**  
**Leaded Gasoline Prices in Six Countries Adjusted for Inflation and Exchange Rates**  
**1977-1983**



Source: Department of Energy, Mines and Resources.

The Japanese producers were also able to take advantage of shifting consumer preferences in Europe where escalating fuel prices resulted in an even greater emphasis being placed on fuel efficient vehicles than was the case prior to 1979. Between 1978 and 1981 the smaller car share of the European market increased from 49 per cent to 62 per cent. By 1981 the Japanese were able to achieve a 14.6 per cent share of this sub-compact/compact segment of the West European market. The Japanese market share in 1982 was 10 per cent in West Germany and 22 per cent in Belgium, while it was limited to an 11 per cent share in Britain, 3 per cent in France and 0.14 per cent in Italy due to import restriction. The Japanese share is much higher in European countries without a domestic automotive industry.

#### Japanese Export Arrangements

Japanese exports of passenger cars to Canada and the United States have been limited since April, 1981. Outside of North America, Japanese export arrangements have taken a variety of forms. An industry to industry understanding for the United Kingdom, starting in 1975, limits the Japanese market share for passenger cars to approximately 11 per cent. Government to government arrangements have also been concluded on the continent. For example, Belgium reached an understanding that limited exports in 1981 and 1982 to below the level reached in 1980, a 20 per cent share. Many other major world markets have imposed either quotas or domestic content regimes.

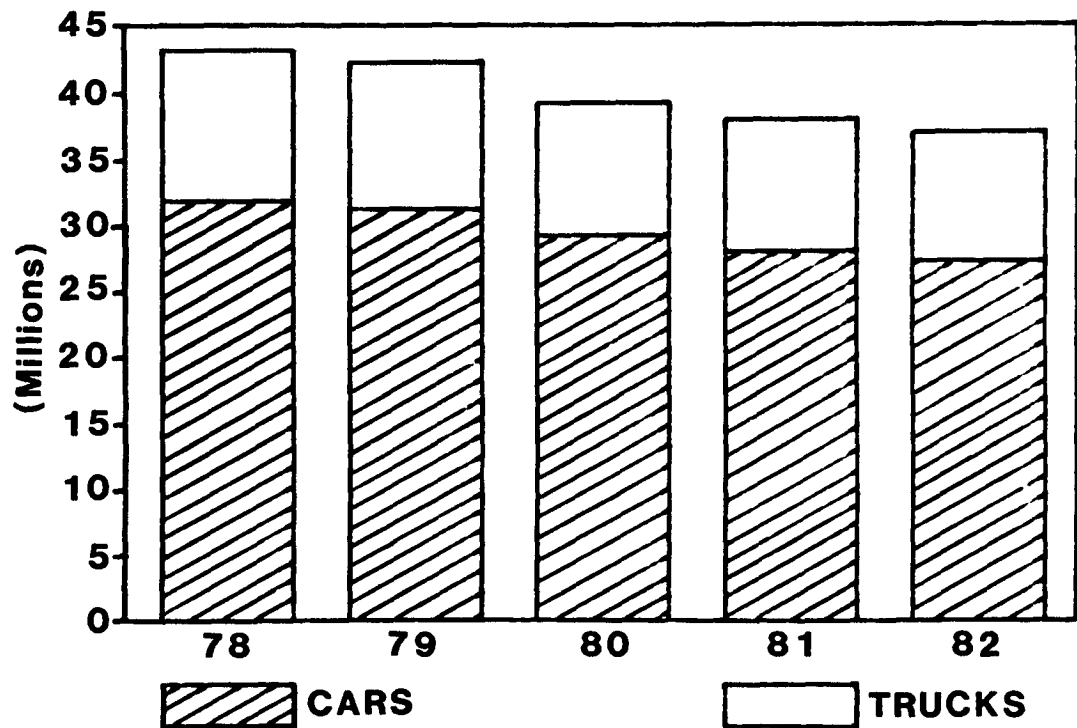
#### Local Content

The very success of producing companies in penetrating world automotive markets has therefore encouraged governments to limit imports of automotive products through either negotiated agreements or local content requirements. The latter have existed in certain countries for many years or have been put in place intermittently as a means of pursuing specific policy objectives. Recourse to the local content policy instrument by developed and developing nations, although it involves a major cost penalty for the consumer, is becoming even more common as growth in international trade and market penetration occurs. Clearly, world trade in automotive products is increasingly a managed trade. This new management regime is affecting the demand and supply of automotive products in all nations.

World Vehicle Production

Worldwide production of motor vehicles declined from 42.3 million units in 1978 to 36 million units in 1982. Although total U.S. vehicle production increased to 9.2 million units in 1983, it had declined to almost 7 million units in 1982, 65 per cent of Japan's 1982 production and 46 per cent below the 1978 U.S. production peak of 12.9 million units. Vehicle production in Canada peaked at 1.8 million units in 1978, declining by a third to 1.2 million units in 1982. Production in Western Europe in 1982 amounted to 12.4 million units, down 8 per cent from the 1979 peak of 13.6 million units.

Figure 9  
World Motor Vehicle Production  
1978-1982

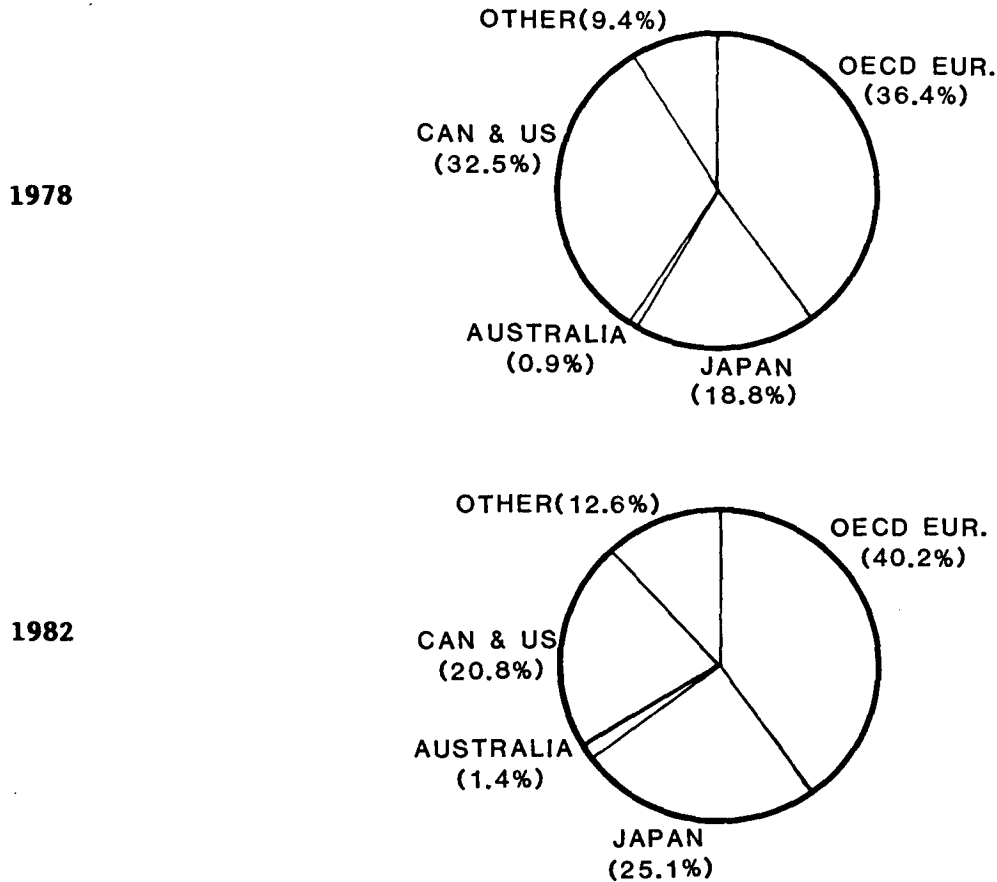


Source: Department of Regional Industrial Expansion.

The share of world production accounted for by major automotive producing regions shifted between 1978 and 1982. Over this period, the North

American share declined from 32.5 per cent to 20.8 per cent, the Japanese share increased from 18.8 per cent to 26.1 per cent, the Western European share went up slightly from 38.4 per cent to 40.2 per cent and other areas changed from 9.4 per cent to 12.6 per cent. These shifts resulted in Japan becoming the world's largest vehicle producer by 1980 when over 11 million units were produced by Japanese automobile manufacturers.

**Figure 10**  
**Regional Shares of Car Production**



Source: OECD.

## Capacity Utilization

Despite the decline in production levels worldwide after 1978 and the general contraction of world markets during the recession, expansion of automotive capacity continued in particular product areas and within certain emerging automotive countries. Estimated capacity utilization worldwide in 1982 was only 78 per cent. During 1982, based on capacity available in 1978-1979 the rate of capacity utilization in the United States was 55 per cent and in Canada 68 per cent. In Western Europe and other producing areas capacity utilization rates ranged between 65 and 85 per cent. Only in Japan have capacity utilization rates been greater than 90 per cent since 1981.

Current indicators suggest that some excess vehicle production capacity continues to exist today, although it is unclear if this is a short-term adjustment problem or a long-term structural problem. While incremental production capacity is continuing to be added worldwide in response to the continuing increase in demand for small cars, it also appears that domestic content regimes in developing countries and the political and market leverage in certain industrialized countries, such as the United States, are serving to encourage the establishment of new assembly plants and the replacement of obsolescent plants.

## Japanese Corporate Investments

The Japanese have been involved to a significant degree in this increased automotive investment either directly or through joint venture and equity arrangements. The value of Japanese automotive assembly and parts investment in the United States is already over \$1 billion and this investment will likely increase in the near future as associated Japanese component manufacturers establish facilities close to the Honda plant in Ohio, the Nissan plant in Tennessee and the GM/Toyota joint venture facility in California. The Japanese automakers have also made smaller investments in over 30 other countries around the world. In Australia in 1981, five Japanese-based auto companies accounted for almost 50 per cent of the country's vehicle production. Toyota recently came to an agreement with the Government of Taiwan to build an assembly plant in that country with an annual capacity of 300 000 cars. Nissan is building an assembly plant in Britain with initial capacity of 20 000 and which may produce some 200 000 vehicles per year once it is in full operation.

European and American  
Corporate Investments

Substantial investments in overseas facilities have been made by European and American companies. General Motors has invested close to \$2 billion in Spain in one major vehicle assembly plant and three parts plants. For a number of years now, Ford has been operating an assembly plant in Spain which, in 1980, produced 265 000 units of which 80 per cent were for export. General Motors, Ford and Fiat have major investments in Brazil and plan to increase production and export capacity in that country of both small cars and engines. Volkswagen, Chrysler, Ford, and GM have all made sizeable investments in Mexico. In particular, the engine production capacity of their Mexican facilities is likely to increase from 500 000 engines in 1980 to between 2.5 and 2.8 million engines per year in 1985. Some 1.8 million of these engines are expected to be exported to the U.S. and Canada.

Newly Industrialized  
Countries

The internationalization of the automotive industry has accelerated as newly industrialized countries have added to their production capabilities and capacity. South Korea, for example, was able to increase its exports of finished vehicles from 9 100 units in 1977 to 26 400 units in 1981. The Korean Government intends to promote increasing levels of vehicle exports through the remainder of the 1980s. While Korea's traditional automotive export markets have been the Middle East, South America and Europe, new markets are opening for Korean companies in North America. The new "Pony" subcompact model, recently introduced in Canada, was developed by the Korean firm Hyundai Motor Company with design and technological assistance from its equity partner, Mitsubishi of Japan.

The Soviet Union and  
Eastern Europe

The Soviet Union and other Eastern European countries have also been able to expand their own automotive production facilities by penetrating markets in the West. Rather than relying on equity investment by Western multinationals, the Soviet Union and the Eastern Bloc have built up their industry through technology transfer and co-production agreements, licenses, and buy-back commitments with the West.

The diffusion of production, consumption and capital investment from established world centres to new centres has meant that intense competition for new vehicle market share is taking place on a



global scale. However, it also appears that co-operation rather than competition between companies is the dominant trend in the development of new automotive technologies and componentry.

Parts Sourcing  
and Supply

Many vehicle manufacturers have increased their worldwide sourcing of purchased components and subsystems. This international sourcing of automotive parts has been motivated by a number of factors, including the existence of domestic content regimes, lower labour costs in developing countries and the fact that many of these product areas are thought to be the automotive growth markets of the future. Mexico, Brazil, Southeast Asia and Korea are expected to grow as foreign parts suppliers to the North American and European markets.

The new sourcing patterns of the major motor vehicle manufacturers will encourage the trend towards market convergence. The differentiation between North American and offshore products is fading as all vehicles are becoming smaller and more international in styling and technology.

The internationalization of the industry, led by European and Japanese vehicle and component manufacturers, has involved joint ventures, technological transfer and direct investment by firms seeking to spread risks, reduce costs and improve market access. As has previously been shown, many of the repercussions of this fundamental change in the organization of the automotive industry worldwide have been felt by the automotive industry in Canada. New and innovative corporate strategies have been called for to keep pace with a rapidly changing business environment. Companies must continue to anticipate a future world market where selling automotive products will be a far more complex task than has been the case in the past.

**CHAPTER 4: THE WORLD OUTLOOK FOR THE AUTOMOTIVE INDUSTRY**

**Synopsis**

Despite the uncertainties which surround forecasts of growth in new vehicle demand during the remainder of this century, it appears that growth rates will be highest outside the developed markets of North America, Europe and Japan. The shift in sales to the developing nations will be accompanied by further change in the global industrial structure of the automotive industry. The traditional distribution of power among the world's automotive producers will tend to move towards greater equality, thereby creating new incentives for cooperative manufacturing efforts between companies.

**World Demand Trends**

All forecasts currently show considerable global growth left in the century. Chase Bank projects an increase in world output from 41 million units in 1980 to 56 in 1985 and 65.7 in 1990. Recent OECD estimates for car demand show growth from 30.5 million in 1979 to 35.2 million in 1985, 38.1 million in 1990 and 46.6 million by the year 2000.

It is difficult to predict the regional allocation of demand over the next two decades. However, Table 10, which is based on OECD statistics, provides some indication of the trends expected by most forecasters.

**TABLE 10**

**Estimated Regional Shares of World Car Demand to the Year 2000**

Region	1979 (per cent)	2000 (per cent)
North America	39	28
Latin America	6	12
Western Europe	34	29
Africa	1	3
Eastern Europe	6	8
Asia	14	20

Source: OECD.

Current disagreements on demand centre on the period up to the 1990s. Most economic forecasts, making heavy use of historical data, tend to project smooth trends, rather than the bumpy pattern demand actually follows. The most likely scenario for world sales is that long term demand will be realized, but it will occur in a pattern of slow growth during the 1980s followed by rapid acceleration in the 1990s. This rapid acceleration will occur only if mid-level developing nations are able to re-establish their economic stability. The role to be played by less-developed regions, which have not yet become dependent on motor vehicles, is less clear.

#### Demand in Developing Countries

The general pattern of demand in developing nations has been for trucks and tractors to lead, with public cars following, and personal car demand taking off once the infrastructure has been built up. But the current international financial uncertainty, which has restricted the availability of capital and credit in many nations, has affected precisely the infrastructure-building capital sectors which normally support motor vehicle demand. In addition, some governments have policies intended to limit the use and consumption of motor vehicles. In these countries, automobiles are considered luxuries and are taxed heavily above their possible market prices. Therefore, demand growth in South America, Africa and regions of Asia will be highly subject to both global credit conditions and transportation policies.

Despite the uncertainties surrounding global demand structure and growth, it is clear that growth rates will be highest outside the developed markets of North America, Europe and Japan, and by the end of the century - only two or three car model cycles away - the bulk of vehicle sales will be shifting to what are now the developing nations.

This demand shift is the most important element of world competition for the next 20 years because it will largely determine which companies become or remain successful international competitors. Low growth rate patterns are powerful enough to completely restructure the current competitive ranking. Even though developed nations are expected to retain high demand levels, it is evident from all long term estimates that there will be between 15 and 20 million units of

completely new annual demand in new markets by the year 2000. These sales will be available to all companies. Conceivably, any of the world's medium-sized vehicle manufacturers could position themselves properly and rise to industrial power.

The potential for gain and global financial return has not escaped the world's companies. Their long term planning is now centering on the potential growth markets of the 1990s and beyond. Indeed, seminal ventures in all the world's potential growth markets foreshadow what is to come during the next 20 years.

#### Change in the Global Industrial Structure

As has been emphasized in other sections of this report, rapid changes in global and local markets have led to changes in the structure of the automotive industry worldwide, but another and equally important trend deserves attention. The traditional distribution of power among all the world's producers is moving markedly toward greater equality, with more powerful but fewer dominant companies. This will fundamentally alter the nature of industrial strategy in this industry over the remainder of this century, for while shifts in production by nation are important, shifts among producers may be more important. A producer can still bring economic benefit to its home country while closing plants there, if it is successful in distant markets. However, if producers are weakened against other producers in all global markets, their return to any host country will be diminishing absolutely.

#### Trend Towards Greater Producer Equality

The trend towards greater equality between producers can be seen by comparing the global automotive producers to General Motors Corporation, long recognized to be the largest producer. On a unit of production basis, the average producer was about 16 per cent the size of GM in 1976, but more than 20 per cent the size of GM in 1981. In the mid-1970s only one company (Ford) ranked more than 40 per cent of GM's size, and only 7 or 8 consistently ranked more than 10 per cent of GM's size. In the 1980s, Ford still ranked second but two others ranked almost 50 per cent while more than 12 ranked over 10 per cent. GM is clearly being advanced upon by two dozen increasingly powerful companies.

On a revenue basis, another indicator of total competitive strength, the results are similar for all competitors, and even more favourable for some of the smallest companies. The top fifteen GM competitors gained an average of more than 30 per cent in size against GM, with the bottom five of these 15 gaining almost 50 per cent in size against GM.

Since the mid-1970s, only three companies, Chrysler, British Leyland and American Motors, have lost ground against GM. More than 20 companies have gained scale against the company. Equally significant has been the broadening of the middle of the pack, with many companies gaining scale and fewer losing. In essence, the global competition for power is now more equal than it was in the 1970s.

The more equal the distribution of power between world auto makers and the more complex and numerous market segments, have acted to permanently change the economies of scale of the global industry. Ten years ago it was commonly assumed that the world would be divided into several large "mega producers" which could afford large production of "average" car types, and a group of smaller "specialty producers" which could survive only by making limited sales in the niches left in the market by the mega producers. Instead, the globalization of world markets and the new balance of power has allowed for a very different pattern; the dominance of more flexible medium-sized producers.

The new balance of power means the industry structure of the future may in fact be very different from what many expected 10 years ago. This has important implications for North American companies, since they were most often thought to be the future "mega companies".

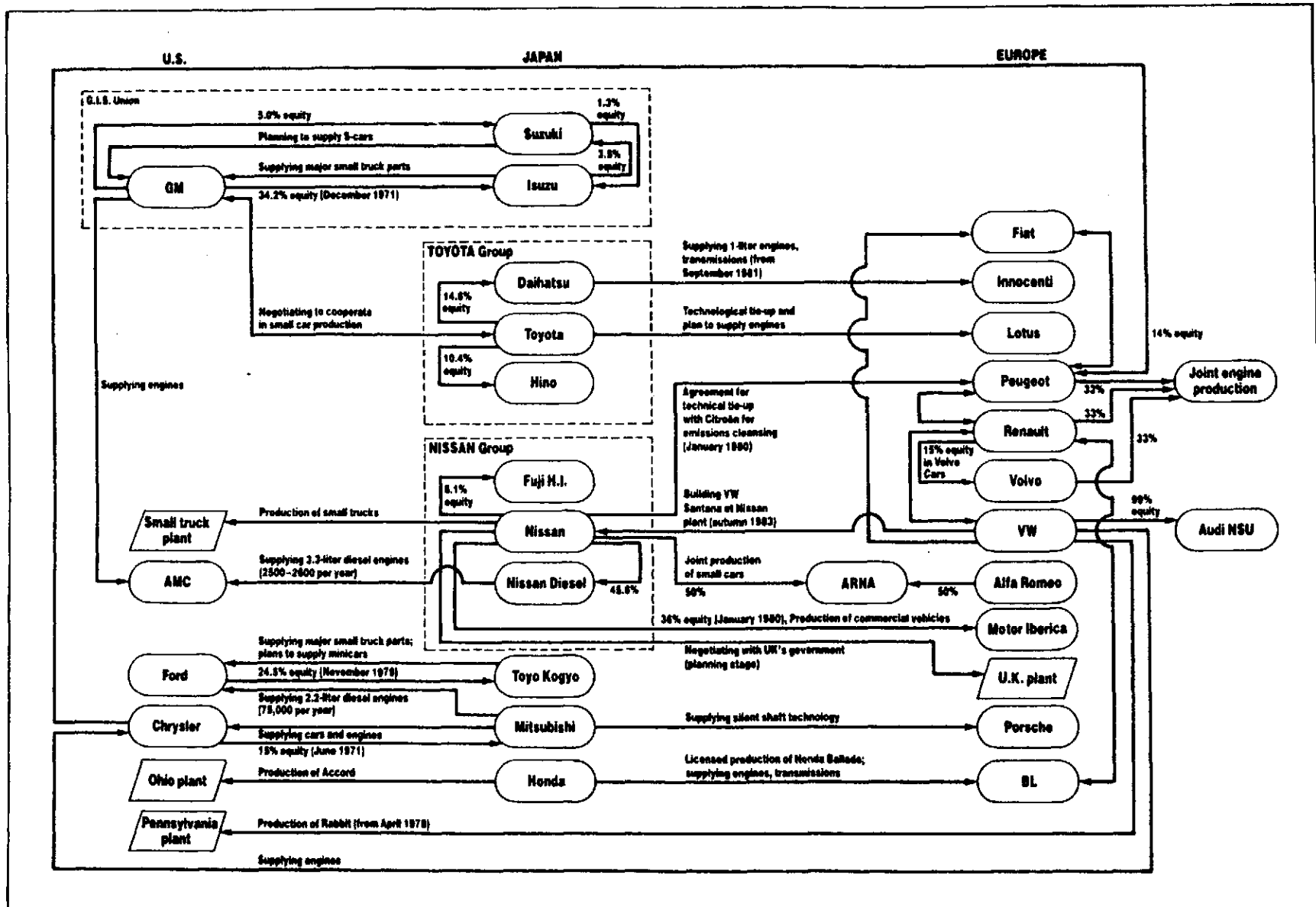
The global industry structure therefore appears to have advanced in the following manner. From the Second World War to the late 1970s, non-North American producers found it necessary to use a variety of strategies to survive in a truly multinational industry. Joint ventures, co-operation among competitors, joint product development, and co-operative distribution were all established in a complex market consisting of more

than two dozen competing companies. In North America, with its isolated market, very little of this structure evolved. It was possible for companies to grow large alone.

The turmoil of the past five years brought the North American companies to a declining position, brought ten or more global companies to a "mid-size" status, and brought all the complexity of the world to the largest and richest single market, North America.

Today, no single company appears strong enough to handle the more complex world alone. None of the rising companies gained enough power to dominate global competition. All companies are left with both strengths and weaknesses, and all want to remain viable in global markets of the future. The result is the creation of a large potential for international "bargaining" in which companies trade strengths and weaknesses, generally through joint venture or similar co-operative efforts, in order to handle the seemingly overwhelming complexity of new global markets. Owing to its former isolation, the greatest amount of structural adaptation appears to be needed by North American based producers. This adaptation requires new co-operative initiatives on the part of industry, labour and governments.

**Figure 11**  
**Correlative Relations Among Automakers in Japan, United States and Europe**



Source: Road and Track.

**CHAPTER 5: PROSPECTS FOR THE CANADIAN AUTOMOTIVE INDUSTRY IN THE 1980's**

**Synopsis**

This report has described the changes in the domestic and international environment of the automotive industry. The Canadian automotive industry has made some of the necessary adjustments to adapt to these changes, but a further commitment to ensure Canadian facilities benefit from the internationalization of the industry is required. The adjustments will not be easy or cost free and, perhaps more significantly, they will have to be made in a period of low growth in North American vehicle sales and continuing change in international markets and the structure of an international automotive industry.

**Factors Affecting Canadian Vehicle Demand**

The growth in vehicle sales in Canada has historically been highly correlated with growth in GNP, employment and the labour force. During the recovery or downturn phases of the business cycles the response of the vehicle market to the changes in these broad economic aggregates will depend on a variety of other economic variables. These include: changes in interest rates, income, price levels, incentives and fiscal stimulae, consumer perceptions and consumer confidence, and several other non-quantifiable factors.

**Affordability**

A key factor which influences vehicle sales is affordability. A major deterrent to automotive sales in the recession and during the current recovery has been the affordability of new cars to the consumer. Although vehicle prices have moderated over the past year, in previous years high new car prices relative to income growth has exerted downward pressure on car sales.

**Interest Rates**

High interest rates have also acted to decrease the affordability of cars for consumers. Even though interest rates dropped substantially in 1983, the average size of the monthly payment on car loans relative to the disposable income are continuing to run at high levels. This factor is, however, being offset by the extension of loan periods.

**Vehicle Age**

As the question of affordability becomes more central to the decision to purchase a new vehicle, the consumer is tending to drive his car for a longer time than he did in the past. The frequency of vehicle trade-ins has declined while spending on repair and maintenance has increased. Due to these trends, the average length of car ownership for new



car buyers is estimated to increase from three years in 1979 to between five and six years by 1990. The average life for new cars is expected to increase from 11 years in 1979 to 14 years by 1990. Again, these factors will affect the growth of the existing stock because of their impact on the sales of new vehicles.

**Canadian Market Forecast**

Forecasts by various agencies and institutions for the growth of vehicle sales in Canada over the next two to three years are presented in Table 11 (below). The variation in the estimates presented in Table 11 is due to the highly uncertain economic environment over the forecast period.

**TABLE 11**

**Passenger Car Forecasts for Canada (Thousands of Units)  
1984 - 1986**

	1984	1985	1986
Royal Bank of Canada	967	1 036	
Data Resources Incorporated	982	986	1 036
Chase Econometrics	952	969	967
Canadian Imperial Bank of Commerce	910	935	

The passenger car market in Canada can be expected to continue to recover slowly during 1984-1985. Total sales, however, may continue to come under downward pressure as a result of high new car prices relative to income growth. In addition, high unemployment rates and slow growth in GNP and the labour force, could continue to depress the automotive market and thus prevent it from reaching full potential. Car sales beyond 1986 are expected to slow down to an annual average growth rate of between one and two percent. This low rate will occur as the current replacement cycle is completed by 1985 and market saturation effects become more predominant. Therefore, the period between 1983 and 1985 should be understood as a replacement cycle and not representative of long-term growth trends.

All forecasts are subject to major risks. A number of negative developments continue to dominate the national and international economic and political scene. As the North American economy recovers, the question of its on-going strength remains. Interest rates are of particular concern in this regard, as rising interest rates could choke off the recovery, and interest sensitive purchases, such as consumer durables, would decline swiftly. Another major risk is from any possible energy price run-up or supply shortage resulting from political developments abroad. The experience of the past decade warns that energy price and supply shocks can unfold quickly and with little advance warning.

**Outlook for the Canadian  
Vehicle Manufacturers**

A strong recovery in sales in 1983, accompanied by substantial productivity improvements, has greatly enhanced the profitability of the Canadian vehicle manufacturers. It is generally believed that breakeven for the domestic manufacturers in North America as a whole has dropped from 12.2 million units to about 9.1 million units over the past three years. The return to profitability should provide Canadian vehicle manufacturers with the financial strength necessary to maintain their current investment programs.

The existing product strategies being pursued by the vehicle manufacturers have placed them in a somewhat better position to take up the challenges posed by increased import penetration over the past four years. The manufacturers have invested heavily in new product and process technologies and have adopted new managerial techniques and organizational forms which will aid in bringing their manufacturing costs down. However, they will still be at a disadvantage given low Japanese cost structures and high productivity levels.

**Outlook for Suppliers**

The restructuring of the North American automotive industry has placed significant pressure on the Canadian parts suppliers as well as providing new opportunities for them to participate in an internationalized industry.

The shift by the assemblers towards purchasing rather than making parts is expected to continue as they make further efforts to lower operating costs. This shift offers outside suppliers a chance to expand their own operations and realize some of the economies associated with large scale production.

New markets are opening up for the Canadian parts sector in the United States and overseas, due to the rapid internationalization of the automotive industry. However, suppliers must be prepared to meet the rigid quality standards set by the vehicle manufacturers and must make further efforts to improve their international competitiveness if they wish to continue to avail themselves of these opportunities.

In the past, Canada has been fortunate to have a skilled and imaginative labour force. If these characteristics are to be brought out in the future, then a commitment to advanced human resource planning must be made by unions, management and governments.

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As this report was being completed it was learned that major Canadian and Japanese automotive companies had announced investments of over \$2 billion in Canadian assembly and parts manufacturing facilities. These new investment commitments indicate that the Government's belief that Canada has a major role to play in the world automotive industry, today and in the future, is well founded.

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NOTE: Because of the variety of sources from which the following statistical tables have been taken, totals will not always agree. These differences can be attributed to the variety of methods used in obtaining the various statistics.

**SALES**

**TABLE 1.1**

**Retail Sales of Motor Vehicles in Canada and the United States  
1965 and 1970-83  
(Thousands of Units)**

YEAR	AUTOMOBILES			TRUCKS			TOTAL VEHICLES
	NORTH	OVERSEAS	TOTAL	NORTH	OVERSEAS	TOTAL	
	AMERICAN TYPE	IMPORT TYPE		AMERICAN TYPE	IMPORT TYPE		
<b>1. CANADA</b>							
1965	634	75	709	120	2	122	831
1970	497	143	640	125	9	134	774
1971	592	188	780	147	13	160	940
1972	654	205	859	190	17	207	1 066
1973	783	188	971	235	20	256	1 227
1974	797	146	943	288	19	307	1 249
1975	836	154	989	310	17	327	1 317
1976	793	153	946	331	14	345	1 291
1977	798	194	991	338	16	354	1 345
1978	816	173	989	364	13	377	1 366
1979	863	140	1 003	381	12	393	1 396
1980	741	191	932	312	22	334	1 266
1981	647	257	904	251	36	287	1 191
1982	489	224	713	167	40	207	920
1983	625	218	843	193	45	238	1 081

Source: Statistics Canada.

YEAR	AUTOMOBILES			TRUCKS			TOTAL VEHICLES
	NORTH	OVERSEAS	TOTAL	NORTH	OVERSEAS	TOTAL	
	AMERICAN TYPE	IMPORT TYPE		AMERICAN TYPE	IMPORT TYPE		
<b>2. U.S.</b>							
1965	8 763	569	9 332	1 539	44	1 583	10 915
1970	7 120	1 285	8 405	1 746	65	1 811	10 216
1971	8 681	1 570	10 251	2 011	85	2 096	12 347
1972	9 327	1 623	10 950	2 486	143	2 632	13 575
1973	9 676	1 763	11 439	2 916	228	3 144	14 583
1974	7 454	1 413	8 867	2 512	171	2 683	11 550
1975	7 053	1 587	8 640	2 249	231	2 480	11 120
1976	8 611	1 498	10 109	2 944	237	3 181	13 290
1977	9 109	2 075	11 184	3 353	323	3 676	14 860
1978	9 312	2 000	11 312	3 776	337	4 113	15 425
1979	8 328	2 300	10 628	3 000	500	3 500	14 128
1980	6 578	2 398	8 976	2 002	484	2 486	11 462
1981	6 206	2 324	8 530	1 852	448	2 300	10 830
1982	5 757	2 222	7 979	2 151	410	2 561	10 540
1983	6 795	2 386	9 181	2 588	464	3 052	12 233

Source: Motor Vehicle Manufacturers' Association and Ward's Reports.

TABLE 1.2

Canadian Sales of North American Cars by Size (Units)  
 Calendar Years 1970-1983

YEAR	SUB-COMPACT	PER CENT		INTER-MEDIATE	PER CENT		FULL SIZE	PER CENT		LUXURY	PER CENT	TOTAL SALES
		TOTAL	COMPACT		TOTAL	TOTAL		TOTAL				
1970	8 882	1.80	101 192	20.46	156 136	31.57	214 785	43.43	13 556	2.74	494 551	
1971	38 616	6.85	108 280	19.22	158 687	28.16	234 656	41.64	23 259	4.13	563 498	
1972	45 645	7.41	132 550	21.51	185 856	30.16	206 830	33.57	45 308	7.35	616 189	
1973	81 739	10.89	164 783	21.96	233 914	31.18	213 909	28.51	55 927	7.45	750 272	
1974	89 969	11.61	183 062	23.63	239 003	30.85	209 102	26.99	53 600	6.92	774 736	
1975	74 552	10.29	185 894	25.66	229 364	31.66	222 581	30.73	11 963	1.65	724 354	
1976	70 483	8.89	245 047	30.91	249 235	31.44	215 451	27.18	12 502	1.58	792 718	
1977	56 060	7.03	245 805	30.81	266 784	33.44	214 287	26.86	14 775	1.85	797 711	
1978	96 154	11.80	248 046	30.43	263 448	32.32	191 113	23.44	16 435	2.02	815 196	
1979	157 814	18.30	236 832	27.46	245 420	28.45	203 388	23.58	19 068	2.21	862 522	
1980	144 687	19.52	228 745	30.86	207 871	28.04	148 145	19.99	11 819	1.59	741 267	
1981	136 778	21.46	197 857	31.05	184 582	28.97	105 406	16.54	12 604	1.98	637 227	
1982	141 021	29.10	146 143	30.15	134 077	27.66	56 451	11.65	6 959	1.44	484 651	
1983	182 665	29.38	164 043	26.38	189 087	30.41	77 316	12.44	8 817	1.42	621 928	

SOURCE: MVMA.



TABLE 1.3

United States Sales of North American Cars by Size (Units)  
 Calendar Years 1970-1983

YEAR	SUB-COMPACT	PER CENT TOTAL	COMPACT	PER CENT TOTAL	INTER- MEDIATE	PER CENT TOTAL	FULL SIZE	PER CENT TOTAL	LUXURY	PER CENT TOTAL	TOTAL SALES
1970	138 259	1.93	1 157 250	16.18	2 434 906	34.04	3 033 092	42.40	389 280	5.44	7 152 787
1971	721 814	8.74	1 174 090	14.21	2 330 502	28.20	3 500 140	42.36	536 890	6.50	8 263 436
1972	809 014	9.75	1 267 350	15.27	2 360 920	28.45	3 332 215	40.15	529 277	6.38	8 298 776
1973	1 072 440	11.09	1 687 379	17.45	2 909 511	30.09	3 258 475	33.70	741 884	7.67	9 669 689
1974	791 901	10.63	1 557 854	20.91	2 539 193	34.09	2 016 375	27.07	543 598	7.30	7 448 921
1975	1 167 393	17.27	1 678 500	24.83	1 974 772	29.21	1 587 852	23.49	352 395	5.21	6 760 912
1976	1 041 050	12.10	2 436 219	28.31	2 845 207	33.06	1 898 857	22.06	385 240	4.48	8 606 573
1977	994 936	10.93	2 364 838	25.97	3 009 209	33.05	2 276 561	25.00	458 910	5.04	9 104 454
1978	1 209 320	13.20	2 224 380	24.28	3 007 774	32.84	2 137 160	23.33	581 547	6.35	9 160 181
1979	1 368 446	16.07	2 222 926	26.10	2 531 517	29.73	1 611 153	18.92	782 068	9.18	8 516 110
1980	1 670 721	25.40	1 674 755	25.46	1 835 799	27.91	1 075 267	16.35	321 710	4.89	6 578 252
1981	1 661 401	26.77	1 523 044	24.54	1 741 694	28.07	951 534	15.33	328 183	5.29	6 205 856
1982	1 738 589	30.20	1 104 083	19.18	1 618 078	28.11	928 467	16.13	367 441	6.38	5 756 658
1983	2 034 807	29.95	924 639	13.61	2 247 042	33.07	1 157 519	17.04	431 292	6.35	6 795 299

SOURCE: 1964 THROUGH 1975 ARE REGISTRATIONS (FIGURES ARE LOW BECAUSE OF INCOMPLETE REPORTS FROM SOME STATES).  
 1976 AND SUBSEQUENT YEARS ARE RETAIL SALES - WARD'S AUTOMOTIVE REPORTS.

TABLE 1.4

Canadian Sales of New Passenger Cars by Origin, 1964-1983 Calendar Year (Units)

Year	Total Sales Volume	Domestic		Total Imported		Japanese	
		Volume	Per Cent	Volume	Per Cent	Volume	Per Cent
1964	616 759	550 823	89.3	65 936	10.7	-	-
1965	708 716	633 641	89.4	75 075	10.6	2 834	0.4
1966	694 820	626 986	90.2	67 834	9.8	2 742	0.4
1967	679 435	605 049	89.1	74 386	10.9	5 617	0.8
1968	741 915	637 393	85.9	104 522	14.1	15 859	2.1
1969	760 803	638 270	83.9	122 533	16.1	39 033	5.1
1970	640 360	497 185	77.7	143 175	22.3	65 569	10.2
1971	780 762	592 319	75.9	188 443	24.1	106 552	13.7
1972	858 959	653 933	76.1	205 026	23.9	116 860	13.6
1973	970 828	782 914	80.6	187 914	19.4	111 467	11.5
1974	942 797	796 840	84.5	145 957	15.5	87 609	9.3
1975	989 280	835 679	84.5	153 601	15.5	95 772	9.7
1976	946 488	793 201	83.8	153 287	16.2	101 558	10.7
1977	991 398	797 752	80.5	193 646	19.5	134 900	13.6
1978	988 890	815 994	82.5	172 896	17.5	113 166	11.4
1979	1 003 008	863 554	86.1	139 454	13.9	79 879	8.0
1980	932 060	740 767	79.5	191 293	20.5	138 107	14.8
1981	904 195	646 942	71.6	257 253	28.4	207 639	23.0
1982	713 481	489 435	68.6	224 046	31.4	178 174	25.0
1983	843 318	625 088	74.1	218 230	25.9	176 525	20.9

Source: Statistics Canada.

TABLE 1.5

U.S. Sales of Passenger Cars by Origin, 1964-1983 Calendar Year (units)

Year	Total Sales		Domestic		Total Imported		Japanese	
	Volume		Volume	Per Cent	Volume*	Per Cent	Volume*	Per Cent
1964	8 100 865		7 616 734	94.0	484 131	6.0	N/A	-
1965	9 232 504		8 763 219	94.9	469 285	5.1	18 067	0.2
1966	8 978 657		8 377 425	93.3	601 232	6.7	40 183	0.5
1967	8 286 472		7 567 884	91.3	718 588	8.7	69 188	0.8
1968	9 610 257		8 624 820	89.7	985 437	10.3	109 586	1.2
1969	9 545 295		8 464 375	88.7	1 080 920	11.3	189 160	2.0
1970	8 364 950		7 115 537	85.1	1 249 413	14.9	312 777	3.7
1971	10 209 375		8 676 284	85.0	1 533 091	15.0	578 977	5.7
1972	10 907 503		9 321 502	85.5	1 586 001	14.6	628 918	5.8
1973	11 402 261		9 669 689	84.8	1 732 572	15.2	742 621	6.5
1974	8 838 244		7 448 921	84.3	1 389 323	15.7	592 113	6.7
1975	8 614 524		7 050 120	81.8	1 564 404	18.2	807 931	9.4
1976	10 097 692		8 606 573	85.2	1 491 119	14.8	931 182	9.2
1977	11 168 708		9 104 454	81.5	2 064 254	18.5	1 399 338	12.5
1978	11 300 477		9 307 563	82.4	1 992 914	17.6	1 414 260	12.5
1979	10 647 442		8 328 055	78.2	2 319 387	21.8	1 833 927	17.2
1980	8 978 584		6 578 252	73.3	2 400 332	26.7	1 908 413	21.3
1981	8 533 135		6 205 856	72.7	2 327 279	27.3	1 858 896	21.8
1982	7 978 872		5 756 658	72.2	2 222 214	27.9	1 801 481	22.6
1983	9 180 835		6 795 299	74.0	2 385 536	26.0	1 915 623	20.9

\* Imported includes captive imports for 1980 and subsequent years.

\*\* May include Japanese passenger car sales (1964 - other).

Source: Ward's.

TABLE 1.6

**Road Motor Vehicle Registrations in Canada  
1978-1982**

	1978	1979	1980	1981	1982
Passenger Automobiles	9 744 994	9 985 146	10 255 511	10 199 388	10 530 355
Trucks and Truck Tractors	2 717 832	2 854 217	2 902 730	3 137 987	3 239 341
Buses	52 966	52 927	52 569	54 210	54 065
Motorcycles	341 381	332 933	388 680	406 871	431 453
Other	118 276	113 477	117 662	53 026	55 503
<b>TOTAL</b>	<u>12 975 449</u>	<u>13 338 700</u>	<u>13 717 152</u>	<u>13 851 482</u>	<u>14 310 717</u>

Source: Statistics Canada.

The statistics on road vehicle registrations shown in this table have been obtained from the 12 provincial and territorial governments across the nation, each of which has its own distinct registration system. While each provincial or territorial system may be comprehensive and consistent within itself, the inconsistencies between the different provinces and territories pose serious problems for anyone trying to make use of national totals.

For all provinces and territories the registration figures represent the total number of vehicles which held a registration in the reporting jurisdiction for all or any part of the licence year. However, there is some slight duplication when vehicles are registered in more than one province or territory during the same licence year. Although the Statistics Canada questionnaire asked for separate reporting of transfers from other provinces or territories, only Nova Scotia and British Columbia were able to supply this figure, therefore, no adjustment was made. An analysis of these reports indicates that less than 1.7 per cent of registrations of road motor vehicles represent transfers from other provinces or territories.

Since 1980, information from the province of Québec concerning registration for 1982 is based on a count of the number of vehicles in circulation. In previous years, data shown in tabulations for Québec were based on the number of registration transactions. However, because Québec registrations change each time a vehicle is sold (unlike in the other nine provinces where the licence plate stays with the vehicle), the transactions count tended to overstate the number of vehicles on the road in Québec.

TABLE 1.7

**Top Ten Vehicle Manufacturers in the World by Total Output  
1982**

COMPANY	TOTAL OUTPUT (Units)
1. General Motors - U.S.A.	6 150 108
2. Ford Motor - U.S.A.	4 004 433
3. Toyota - Japan	3 147 262
4. Nissan - Japan	2 512 309
5. Renault - France	2 105 358
6. Volkswagen - West Germany	2 079 246
7. Peugeot - France	1 689 016
8. Fiat - Italy	1 619 413
9. Toyo Kogyo - Japan	1 110 164
10. Chrysler - U.S.A.	1 040 904

Note: Includes Production from Plants Outside Parent Country.

Source: Motor Vehicle Manufacturers Association of the United States, World Motor Vehicle Data 1983.

Data compiled by the MVMA from various overseas sources. Information was obtained from published reports issued by various vehicle associations outside the U.S. and from a number of other sources considered reliable. Therefore, and because of the numerous complex factors involved in determining vehicle ranking worldwide, the MVMA does not assume responsibility for the above classification.

TABLE 1.8

**International Sourcing Pattern of Original Equipment Parts of the Five Major Motor Vehicle Manufacturers (\$ millions Canadian)**

Model Year	U.S. Purchases from In-house Suppliers in Canada (a)	Canadian Purchases from In-houses Suppliers in U.S.A. (b)	Column (a) Less Column (b) (c)
1965	17.4	522.2	- 504.8
1966	163.7	599.5	- 435.8
1967	209.0	716.1	- 507.1
1968	356.3	1 008.5	- 652.2
1969	406.8	1 298.7	- 891.9
1970	453.6	1 153.3	- 699.7
1971	639.0	1 428.1	- 789.1
1972	763.2	1 556.4	- 793.2
1973	801.7	1 804.0	-1 002.3
1974	713.0	2 083.2	-1 370.2
1975	796.7	2 209.1	-1 412.4
1976	1 165.6	2 772.2	-1 606.6
1977	1 520.6	3 365.8	-1 845.2
1978	2 222.0	N.A.	N.A.
1979	2 361.7	4 702.8	-2 341.1
1980	1 604.1	3 991.7	-2 387.6
1981	2 118.7	4 957.2	-2 838.5
1982	2 891.7	5 374.2	-2 482.5
1983	2 360.0	5 918.0	-3 558.0

Model Year	U.S. Purchases from Independent Suppliers in Canada	Canadian Purchases from Independent Suppliers in U.S.A.	
1965	74.3	236.4	- 162.1
1966	112.3	279.8	- 167.5
1967	172.1	304.6	- 132.5
1968	327.4	405.2	- 77.8
1969	430.9	485.5	- 54.6
1970	487.3	505.4	- 18.1
1971	574.5	484.4	90.1
1972	699.3	558.9	140.4
1973	888.4	748.8	139.6
1974	771.4	846.9	- 75.5
1975	875.8	1 051.1	- 175.3
1976	1 221.6	1 283.5	- 61.9
1977	1 530.0	1 519.9	10.1
1978	1 537.8	N.A.	N.A.
1979	1 812.0	1 560.0	25.2
1980	1 253.4	1 226.1	27.3
1981	1 385.1	1 450.7	- 65.6
1982	1 476.9	1 843.8	- 366.9
1983	1 922.1	2 067.4	- 145.3

\*The Big Four auto makers and International Harvester

Note: Canadian purchases are for use in vehicle assembly in Canada only. These figures do not include parts imported for further manufacture or parts imported for re-export either as parts or as CKD vehicles.

Source: Compiled from company responses to the Reisman Inquiry (1965-1977) and company Auto Pact reports (1979-1983). 1978 data not available from Auto Pact Reports.

**TABLE 1.9**

**Consumption of Automotive Parts by Vehicle Manufacturers  
(\$ millions Canadian)**

Year	Canada	Within the United States	Canada as a Per Cent of Total
1972	3 239.2	32 483.2	9.1
1973	3 843.1	38 460.1	9.1
1974	4 314.1	34 338.1	11.2
1975	4 967.6	37 010.7	11.8
1976	6 090.8	48 796.2	11.1
1977	7 096.8	64 334.4	9.9
1978	8 378.8	76 966.0	9.8
1979	8 975.2	79 076.1	10.2
1980	8 752.3	64 364.5	12.0
1981	9 823.4	73 347.4	11.8
1982	10 597.8	-	-

Source: Statistics Canada, U.S. Department of Commerce and the APMA.

**SHIPMENTS**



TABLE 2-1

## Value of Shipments In Canadian and U.S. Automotive Industries (1972-1981) (\$ millions)

	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>
<u>CANADA</u>											
323 Motor Vehicle Manufacturers	4033.6	4715.8	5381.9	6024.4	7276.1	8610.4	10070.1	10724.4	10071.1	11402.8	12343.6
3241 Truck Body Manufacturers	116.0	143.2	178.3	197.2	194.4	188.6	207.6	281.2	316.5	372.5	311.9
3243 Commercial Trailer Manufacturers	92.4	108.9	138.4	117.0	110.3	151.8	218.5	313.3	301.9	259.1	171.5
SUB TOTAL	4242.0	4967.9	5698.6	6338.6	7580.8	8950.8	10496.2	11318.9	10689.5	12034.4	12827.0
325 Motor Vehicle Parts & Access.	1903.2	2304.6	2281.1	2325.8	3112.3	3790.2	4692.0	4472.8	3609.7	4358.4	5059.7
188 Automobile Fabric Accessories	202.8	229.3	229.0	227.1	305.5	348.6	427.7	424.6	424.5	520.9	479.2
SUB TOTAL	2106.0	2533.9	2510.1	2552.9	3417.8	4138.8	5119.7	4897.4	4034.2	4879.3	5538.9
TOTAL	<u>6348.0</u>	<u>7501.8</u>	<u>8208.7</u>	<u>8891.5</u>	<u>10998.6</u>	<u>13089.6</u>	<u>15615.9</u>	<u>16216.3</u>	<u>14723.7</u>	<u>16913.7</u>	<u>18365.9</u>
<u>U.S.A.</u>											
3711 Motor Vehicle & Car Bodies	42905.6	50227.7	43868.5	45340.2	62717.4	76517.8	84900.9	85147.4	66257.4	74273.1	70625.0
3713 Truck & Bus Bodies**	1564.4	1595.8	1471.3	1739.9	2342.4	3329.1	2292.5	2355.4	2123.1	2314.9	1974.8
3715 Truck Trailers	1117.9	1369.5	1636.9	921.6	1297.3	1910.1	2498.0	3088.2	2435.8	2206.2	1850.0
SUB TOTAL (U.S. \$)	45587.9	53193.0	46976.7	48001.7	66357.1	81757.0	89691.4	90591.0	70816.3	78794.2	74449.8
3714 Motor Vehicle Parts & Access.	18333.5	21606.5	21656.0	22030.1	29024.4	35750.8	40199.7	39807.2	32881.2	37080.9	N/A
3465 Automotive Stampings	5286.0	6085.9	6103.0	6116.2	8070.5	9739.2	10697.6	10425.9	8497.3	8960.7	N/A
3592 Carburetors, Pistons, Rings	744.3	1017.6	977.3	1009.0	1256.3	1400.6	1608.5	1904.1	1838.8	2130.9	N/A
3647 Vehicular Lighting Equipment	499.8	577.4	598.0	590.6	771.1	908.5	1057.2	1061.5	876.0	956.3	N/A
3694 Engine Electrical Equipment	2035.0	2343.0	2388.1	2427.6	3100.3	3647.2	4097.9	4124.3	3684.3	4071.0	N/A
2396 Automotive Apparel Trimmings	1133.0	1289.4	1234.4	1283.1	1658.5	2166.3	2280.8	2287.4	1939.5	2286.1	N/A
SUB TOTAL (U.S. \$)	<u>28031.6</u>	<u>32919.8</u>	<u>32956.8</u>	<u>33456.6</u>	<u>43881.1</u>	<u>53612.6</u>	<u>59941.7</u>	<u>59610.4</u>	<u>49717.1</u>	<u>55485.9</u>	<u>N/A</u>
TOTAL U.S.A. (U.S. \$)	73619.5	86112.8	79933.5	81458.3	110238.2	135369.6	149633.1	150201.4	120533.4	134280.1	-
TOTAL U.S.A. (CDN. \$)	72920.1	86121.4	78175.0	82867.5	108705.9	143965.6	170611.7	175960.9	140903.5	161001.8	-
NORTH AMERICAN TOTAL (CDN. \$)	79268.1	93623.2	86383.7	91759.0	119704.5	157055.2	186227.6	192177.2	155627.2	177915.5	-
CANADA as a percentage of the TOTAL	8.01	8.01	9.50	9.69	9.19	8.33	8.39	8.44	9.46	9.51	-

\*\* Revised in 1977. Excludes Motor Homes.

Source: Statistics Canada and U.S. Department of Commerce.

**PRODUCTION**

**TABLE 3.1**

**North American Production of Motor Vehicles ('000 Units)**

Year	Canada		U.S.A.		North America Total	
	Volume	Per Cent	Volume	Per Cent	Volume	Per Cent
1965	846	7.1	11 114	92.9	11 960	100.0
1966	902	8.0	10 363	92.0	11 265	100.0
1967	947	9.5	8 992	90.5	9 939	100.0
1968	1 180	9.8	10 794	90.2	11 974	100.0
1969	1 353	11.7	10 182	88.3	11 535	100.0
1970	1 193	12.6	8 263	87.4	9 456	100.0
1971	1 373	11.4	10 650	88.6	12 023	100.0
1972	1 474	11.5	11 297	88.5	12 771	100.0
1973	1 575	11.1	12 663	88.9	14 238	100.0
1974	1 564	13.5	9 984	86.5	11 548	100.0
1975	1 442	13.9	8 965	86.1	10 407	100.0
1976	1 647	12.5	11 486	87.5	13 133	100.0
1977	1 775	12.3	12 699	87.7	14 474	100.0
1978	1 818	12.4	12 895	87.6	14 713	100.0
1979	1 632	12.4	11 475	87.6	13 107	100.0
1980	1 374	14.6	8 010	85.4	9 384	100.0
1981	1 280	13.9	7 941	86.1	9 221	100.0
1982	1 236	15.0	6 985	85.0	8 221	100.0
1983	1 486	13.9	9 206	86.1	10 692	100.0

Source: Ward's Automotive Reports.

TABLE 3.2

**Motor Vehicle Parts and Accessories Production - Canada and the U.S.**  
 (\$ millions Canadian)

YEAR	CANADA	U.S.	CANADA AS A PERCENTAGE OF TOTAL NORTH AMERICA
1972	2 106.0	27 765.3	7.1
1973	2 533.8	32 919.8	7.1
1974	2 510.0	32 231.8	7.2
1975	2 552.9	34 035.4	7.0
1976	3 417.8	43 271.2	7.3
1977	4 138.8	57 017.0	6.8
1978	5 119.7	68 345.5	7.0
1979	4 897.4	69 833.6	6.6
1980	4 034.2	58 119.3	6.5
1981	4 879.3	66 527.6	6.8
1982	5 538.9	N/A	-

Source: Statistics Canada and the U.S. Department of Commerce.

The value of production in the parts industry is measured by the value of shipments. However, because of classification problems these statistics underestimate the actual level of production. For the purposes of this report, the 365 establishments in SIC 325, Motor Vehicle Parts and Accessories, and SIC 188, Automotive Fabric Accessories, have been taken as constituting the automotive parts industry. However, the methods by which Statistics Canada classifies manufacturing plants eliminates nearly 800 companies with at least some automotive parts manufacturing from these two classifications.

The problems with the current classification system are two-fold. First, many plants that ship some of even all of their output to the automotive industry are counted in other industrial categories. A second problem with the classification system is that only plants whose production is at least 50 per cent automotive parts are counted as parts facilities. Hundreds of companies with automotive product lines are not counted as having any automotive production. In some cases these companies are among the largest parts manufacturers in Canada.

**TABLE 3.3**

**Canadian Truck Production (Units)  
1975-1983**

YEAR	LIGHT	PER CENT OF TOTAL	MEDIUM AND HEAVY DUTY	PER CENT OF TOTAL	TOTAL
1975	367 142	94.74	20 397	5.26	387 539
1976	482 807	96.45	17 753	3.55	500 560
1977	576 297	95.64	26 263	4.36	602 560
1978	629 743	95.99	26 316	4.01	656 059
1979	606 936	95.59	27 980	4.41	634 916
1980	506 274	95.97	21 248	4.03	527 522
1981	480 172	96.65	16 650	3.35	496 822
1982	434 138	96.94	13 682	3.06	447 820
1983	539 386	98.53	8 051	1.47	547 437

Source: Ward's Automotive Reports.

**TABLE 3.4**  
**U.S. Truck Production (Units)**  
**1975-1983**

YEAR	LIGHT	PER CENT OF TOTAL	MEDIUM	PER CENT OF TOTAL	HEAVY DUTY	PER CENT OF TOTAL	TOTAL
1975	1 945 498	85.62	200 271	8.82	126 391	5.56	2 272 160
1976	2 637 314	88.53	198 726	6.67	143 009	4.80	2 979 049
1977	3 048 767	88.80	203 653	5.93	180 809	5.27	3 433 229
1978	3 263 122	88.04	224 379	6.05	218 749	5.91	3 706 250
1979	2 608 076	85.89	189 477	6.24	239 153	7.88	3 036 706
1980	1 386 523	83.16	100 088	6.00	180 672	10.84	1 667 283
1981	1 445 403	84.98	88 666	5.21	166 839	9.81	1 700 908
1982	1 720 532	90.30	49 224	2.58	135 684	7.12	1 905 440
1983	2 096 297	86.47	126 548	5.22	201 459	8.31	2 424 304

Source: Ward's Automotive Yearbook.

**INVESTMENT**

TABLE 4.1

## New Capital Expenditures in Canadian and U.S. Automotive Industries (1972-1982) (\$ millions Canadian)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
<u>CANADA</u>												
Motor Vehicle Manufacturers	33.1	43.2	73.5	61.0	59.6	152.5	83.6	111.4	136.4	272.9	203.1	478.7
Truck Body Manufacturers	<u>12.8</u>	<u>17.6</u>	<u>31.2</u>	<u>18.5</u>	<u>23.3</u>	<u>24.1</u>	<u>15.4</u>	<u>41.7</u>	<u>47.2</u>	<u>32.2</u>	<u>33.6</u>	<u>9.0</u>
SUB TOTAL	45.9	60.8	104.7	79.5	82.9	176.6	99.0	153.1	183.6	305.1	236.7	487.7
Motor Vehicle Parts & Access.	<u>55.9</u>	<u>78.7</u>	<u>119.9</u>	<u>81.2</u>	<u>62.5</u>	<u>109.6</u>	<u>203.9</u>	<u>330.9</u>	<u>780.9</u>	<u>666.5</u>	<u>188.5</u>	<u>164.0</u>
TOTAL	<u>101.8</u>	<u>139.5</u>	<u>224.6</u>	<u>160.7</u>	<u>145.5</u>	<u>286.2</u>	<u>302.9</u>	<u>484.0</u>	<u>964.5</u>	<u>971.6</u>	<u>393.9</u>	<u>651.7</u>
<u>U.S.A.</u>												
Motor Vehicle & Car Bodies	908.5	806.0	1020.0	667.0	1032.3	1814.4	2140.0	2232.4	2677.5	5631.9	N/A	N/A
Truck & Bus Bodies**	47.8	29.5	33.7	28.6	30.8	59.7	44.8	56.2	41.7	52.9	N/A	N/A
Truck Trailers	<u>14.5</u>	<u>28.0</u>	<u>29.0</u>	<u>33.2</u>	<u>14.3</u>	<u>38.6</u>	<u>44.5</u>	<u>43.5</u>	<u>64.5</u>	<u>66.3</u>	<u>N/A</u>	<u>N/A</u>
SUB TOTAL (U.S. \$)	970.8	863.5	1082.7	728.8	1077.4	1912.7	2229.3	2332.1	2783.7	5751.1	N/A	N/A
Motor Vehicle Parts & Access.	1102.6	1033.7	1261.7	1133.7	948.7	1973.9	2801.9	3222.4	3615.7	3968.0	N/A	N/A
Automotive Stampings	116.4	171.5	220.5	219.5	173.7	310.8	457.7	457.9	713.1	1012.4	N/A	N/A
Carburators, Pistons, Rings	26.8	73.5	29.0	31.1	38.1	85.0	137.1	136.1	133.1	165.2	N/A	N/A
Vehicular Lighting Equipment	7.1	33.7	45.6	15.5	21.1	49.1	47.0	59.9	59.7	83.9	N/A	N/A
Engine Electrical Equipment	30.5	80.9	128.6	52.8	72.3	155.3	196.9	187.1	147.6	188.0	N/A	N/A
Automotive Apparel Trimmings	<u>10.3</u>	<u>26.7</u>	<u>37.7</u>	<u>21.1</u>	<u>20.2</u>	<u>38.4</u>	<u>40.0</u>	<u>44.5</u>	<u>53.8</u>	<u>72.5</u>	<u>N/A</u>	<u>N/A</u>
SUB TOTAL (CDN \$)	<u>1293.7</u>	<u>1420.0</u>	<u>1723.1</u>	<u>1473.4</u>	<u>1274.1</u>	<u>2612.5</u>	<u>3680.6</u>	<u>4107.9</u>	<u>4723.0</u>	<u>5490.0</u>	<u>N/A</u>	<u>N/A</u>
TOTAL U.S.A. (CDN \$)	2264.5	2283.5	2805.8	2202.2	2351.5	4525.2	5909.9	6440.0	7506.7	11241.1	N/A	N/A
TOTAL NORTH AMERICAN (CDN. \$)	2366.3	2423.0	3030.4	2362.9	2496.9	4811.4	6212.8	6924.0	8471.2	12212.7	N/A	N/A
CANADA as a % of NORTH AMERICA												
- Motor Vehicle Assembly	4.5	6.6	8.8	9.8	7.1	8.5	4.3	6.2	6.2	5.0		
- Motor Vehicle Parts	4.1	5.3	6.5	5.2	4.7	4.0	5.2	7.5	14.2	10.8		
- Total Auto Industry	4.3	5.8	7.4	6.8	5.8	5.9	4.9	7.0	11.4	8.0		

\*\* Revised in 1977. Excludes Motor Homes.

Exchange Rate Conversion: Average New Exchange Rates, Bank of Canada Review, 1965-1982.

Source: Statistics Canada and U.S. Department of Commerce.



**TRADE & AUTO PACT DATA**

TABLE 5.1

## Canada/Overseas Trade In Automotive Products\* (\$ millions Canadian)

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	
<u>CANADIAN EXPORTS</u>																			
Motor Vehicles	110	100	133	108	141	114	117	126	204	421	427	614	711	558	634	656	440	281	
Parts	42	53	68	91	99	85	88	119	142	180	171	195	314	445	420	556	404	259	
Tires and Tubes	4	4	3	2	3	4	3	5	5	5	8	7	10	11	31	45	26	18	
Re-Exports	6	9	11	10	9	7	6	8	7	10	10	10	9	21	89	436	390	194	
TOTAL	162	166	215	211	252	210	214	258	358	621	615	826	1044	1035	1174	1693	1260	752	
<u>CANADIAN IMPORTS</u>																			
Motor Vehicles	111	114	177	245	240	374	464	377	450	410	522	592	894	727	1159	1599	1413	1624	
Parts	33	35	60	93	130	133	191	212	260	206	231	235	262	365	355	342	379	613	
Tires and Tubes	5	7	10	13	19	27	42	57	70	82	79	110	146	202	208	187	115	128	
TOTAL	149	156	247	351	389	534	697	646	780	698	842	937	1302	1294	1722	2128	1907	2365	
<u>BALANCES</u>																			
Motor Vehicles	(1)	(14)	(944)	(137)	(99)	(260)	(347)	(251)	(246)	11	(95)	22	(183)	(169)	(525)	(943)	(973)	(1343)	
Parts	9	18	8	(2)	(31)	(48)	(103)	(93)	(118)	(26)	(60)	(40)	52	180	65	214	25	(354)	
Tires and Tubes	(1)	(3)	(7)	(11)	(16)	(23)	(39)	(52)	(65)	(77)	(71)	(103)	(136)	(191)	(177)	(142)	(89)	(110)	
Re-Exports	6	9	11	10	9	7	6	8	7	10	10	10	9	21	89	436	390	194	
TOTAL	13	10	(32)	(140)	(137)	(324)	(483)	(388)	(422)	(82)	(227)	(111)	(258)	(259)	(548)	(435)	(647)	(1613)	

\*CKDs are included sometimes in the parts category and sometimes in vehicle category.

Source: Statistics Canada.

TABLE 5-2

Canada - United States Trade in Automotive Products  
1965-1983

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	
	\$ MILLION																		
United States Imports from Canada*																			
Cars	342	748	1 204	1 662	1 538	1 943	2 046	2 272	2 540	2 858	3 430	4 032	4 723	4 345	4 452	5 145	7 170	8 973	
Trucks, etc.	146	247	399	605	589	593	706	789	868	932	1 344	1 964	2 325	2 364	2 218	3 142	3 946	4 437	
Parts	389	512	846	1 037	1 127	1 495	1 778	2 172	1 963	2 045	2 942	3 721	4 753	4 489	3 405	4 151	4 902	7 056	
Tires and tubes	9	13	9	5	15	8	23	68	64	68	163	144	192	234	231	286	406	419	
Total	886	1 520	2 458	3 309	3 269	4 039	4 553	5 301	5 435	5 903	7 879	9 861	11 993	11 432	10 306	12 724	16 424	20 885	
Canadian Imports from United States																			
Cars	289	588	809	792	659	960	1 056	1 439	1 621	2 183	2 317	2 834	3 038	3 747	3 388	3 710	2 875	4 886	
Trucks, etc.	95	132	189	263	275	361	495	643	896	942	970	1 118	1 322	1 952	1 217	1 347	873	1 129	
Parts	1 093	1 314	1 820	2 307	2 107	2 485	2 907	3 528	3 829	4 425	5 473	6 848	8 092	8 666	7 600	9 230	9 676	11 359	
Tires and tubes	10	8	29	37	24	36	50	92	218	174	115	153	130	155	146	165	147	225	
Total	1 487	2 042	2 847	3 399	3 065	3 842	4 508	5 702	6 564	7 724	8 874	10 953	12 582	14 520	12 351	14 452	13 571	17 599	
Balances																			
Cars	53	160	395	870	879	983	990	833	919	675	1,113	1,198	1,685	598	1,064	1,435	4,295	4,087	
Trucks, etc.	51	115	210	342	314	232	211	146	-28	-10	375	846	1,003	412	1,001	1,795	3,073	3,308	
Parts	-704	-802	-974	-1 270	-980	-990	-1 129	-1 356	-1 866	-2 380	-2 531	-3 127	-3 339	-4 177	-4 195	-5 079	-4 774	-4 303	
Tires and Tubes	-1	5	-20	-32	-9	-28	-27	-24	-154	-106	48	-9	62	79	85	121	259	194	
Total	-601	-522	-389	-90	204	197	45	-401	-1 129	-1 821	-995	-1 092	-589	-3 087	-2 045	-1 728	2 853	3 286	
Excluded: retroactive adjustments to value of imported parts from U.S. for special tooling charges.																			
	31	48	51	84	95	80	85	93	188	135	151	244	284	234	288	218	260	573	

\*A more accurate measurement of trade in automotive products is obtained by comparing the import statistics of each country. Accordingly, Canadian exports are derived from the counterpart United States statistics of imports.

TABLE 5.3

Canadian-U.S. Trade in the Automotive Products Within and Outside the Automotive Products Trade Agreement  
1973-1982

(\$ millions Canadian)	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
<u>U.S. Imports from Canada</u>										
Under APTA - Motor Vehicles	3040.2	3391.0	3726.1	4703.6	5942.8	6972.0	6622.0	6612.2	8141.7	11023.1
- Parts	2048.0	1816.9	1909.2	2766.6	3488.4	4421.0	4072.0	3008.1	3670.7	4292.4
- Sub-Total	5088.2	5207.9	5635.3	7470.2	9431.2	1393.0	10694.0	9620.3	11812.4	15315.5
Outside APTA - Motor Vehicles	20.8	14.3	60.5	69.1	51.4	61.0	84.0	56.3	118.7	93.2
- Parts	123.6	136.1	131.4	174.9	112.7	325.0	417.0	374.0	398.4	602.3
- Tires and Tubes	68.0	63.6	68.1	163.7	143.6	191.0	234.0	229.9	239.0	405.4
- Sub-Total	212.4	214.0	260.0	407.7	307.7	577.0	735.0	660.2	756.1	1100.9
<u>Canadian Imports from U.S.</u>										
Under APTA - Motor Vehicles	2010.1	2443.9	3000.3	3129.7	3846.1	4283.0	5564.0	4542.6	4944.8	3705.2
- Parts	3236.3	3546.6	4039.9	4800.8	6218.3	7425.0	7780.0	6890.3	8364.2	9055.8
- Sub-Total	5246.5	5990.5	7040.2	7930.5	10064.4	11708.0	13344.0	11432.9	13309.0	12761.0
Outside APTA - Motor Vehicles	94.1	108.1	277.6	201.3	206.2	77.0	135.0	148.6	236.2	101.6
- Parts	303.8	341.4	356.6	578.8	511.7	661.0	879.0	712.6	908.6	722.2
- Tires and Tubes	92.0	218.1	172.8	114.4	153.1	130.0	155.0	145.6	136.7	120.5
- Sub-Total	489.9	667.6	807.0	894.5	871.0	868.0	1169.0	1006.8	1281.5	944.3
<u>Balances</u>										
Under APTA - Motor Vehicles	1030.1	947.1	725.8	1573.9	2096.7	2689.0	1058.0	2069.6	3196.9	7317.9
- Parts	(1188.3)	(1729.7)	(2130.7)	(2034.2)	(2729.9)	(3004.0)	(3708.0)	(3882.2)	(4693.5)	(4763.4)
- Total	(158.2)	(782.6)	(1404.9)	(460.3)	(633.2)	(315.0)	(2650.0)	(1812.6)	(1496.6)	2554.5
Outside APTA - Motor Vehicles	( 73.3)	( 93.8)	( 217.1)	( 132.2)	( 154.8)	( 16.0)	( 51.0)	( 92.3)	( 117.5)	( 8.4)
- Parts	( 180.2)	( 205.3)	( 225.2)	( 403.9)	( 399.0)	336.0	462.0	( 338.6)	( 510.2)	( 119.9)
- Tires and Tubes	( 24.0)	( 154.5)	( 104.7)	49.3	( 9.5)	61.0	79.0	84.3	102.3	184.9
- Total	( 227.5)	( 453.6)	( 547.0)	( 486.8)	( 563.3)	( 291.0)	( 434.0)	( 346.6)	( 525.4)	156.6

Source: Compiled from data in the "Commodity Imports by Tariff Item" Series, Statistics Canada and various Issues of the U.S. President's Report to the Congress on the Operations of the Canada-U.S. Automotive Agreement. Imports from the U.S. Includes CKD parts.

**TABLE 5.4**

**Relationship Between Canada/U.S. Auto Pact Trade Imbalance and Canadian Value Added in Automotive Production as Percentage of Canadian Cost of Sales**

Year	Canadian Value Added as Percentage of Cost of Sales in Canada (model year)	Canada Auto Pact Trade Imbalance of Percentage of Total Canada/U.S. Auto Pact Trade (calendar year)
1966	69	-24.7
1967	69	-15.8
1968	72	- 7.8
1969	81	- 1.4
1970	92	4.4
1971	95	3.5
1972	90	1.5
1973	79	- 1.5
1974	71	- 7.0
1975	66	-11.1
1976	67	- 3.0
1977	72	- 3.2
1978	74	- 1.4
1979	64	-11.0
1980	53	- 8.6
1981	62	- 6.0
1982	91	9.1
1983	87	N/A

Source: Department of Regional Industrial Expansion

TABLE 5.5

Overall Net Production to Net Sales Value Ratios\* Achieved by Auto Pact Companies In Canada 1970-1982  
(\$ millions Canadian)

	MODEL YEARS													
	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
<u>PASSENGER VEHICLES</u>														
(Required ratio: range 95-100)														
Net Sales Value Ratio Achieved (All companies)	166	149	125	121	122	122	122	125	130	130	106	123	202	196
<u>COMMERCIAL VEHICLES</u>														
(Required ratio: range 75-100+)														
Net Sales Value Ratio Achieved (All companies)	162	142	122	115	98	101	113	132	155	127	115	140	238	272
<u>BUSES</u>														
(Required ratio: range 85-100)														
Net Sales Value Ratio Achieved (All companies)	111	120	119	97	102	114	98	105	163	183	199	273	213	243

\*Net production to net sales value ratio is the ratio of the total value of Canadian vehicle production to the total net sales value of vehicle sales for all Auto Pact companies.

Source: Compiled from Company Auto Pact Reports to Department of Regional Industrial Expansion.

TABLE 5.6

Actual Canadian Value Added as a Percentage of Cost of Sales Compared to CVA Commitments of all Auto Pact Producers (1974 - 1983)  
(\$ millions Canadian)

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Cost of Vehicle Sales in Canada of all Auto Pact Producers (model year)	3 795	4 545	5 345	6 001	6 727	8 554	8 757	8 659	6 327	6 752
Total Canadian Value Added Produced (model year)	2 687	2 987	3 606	4 337	4 951	5 491	4 659	5 368	5 759	5 847
Difference between Cost of Sales and CVA Produced	1 108	1 558	1 739	1 664	1 776	3 063	4 020	3 235	568	905
Total Achieved CVA as percentage of Cost of Sales	71	66	67	72	74	64	53	62	91	87
Total CVA as a percentage of Cost of Sales Committed to by all Auto Pact Producers	62	61	61	60	59	58	57	58	59	60

Source: Auto Pact Company Reports to Department of Regional Industrial Expansion.

TABLE 5.7

**Total Canadian Value Added by Category of Production for the Four Major Vehicle Manufacturers in Canada**  
(\$ thousands Canadian)

Year	Non-parts C.V.A. in Vehicle Production	Parts C.V.A. in Vehicle Production	C.V.A. in Original Equipment Parts Exported	Total Canadian Value Added Produced	Parts C.V.A. as Percentage of Total C.V.A.
	a	b	c	d = a+b+c	(b+c)/d
1964	319 294	429 687	36 496	785 477	59.4
1965	379 532	575 750	100 097	956 229	60.3
1966	398 154	537 554	198 943	1 134 651	64.9
1967	360 716	481 780	302 669	1 145 165	68.5
1968	418 490	493 666	444 895	1 357 051	69.2
1969	473 920	559 537	587 509	1 620 966	70.8
1970	482 821	509 910	650 575	1 643 306	70.6
1971	524 922	457 094	728 149	1 710 165	69.3
1972	564 178	562 676	879 228	2 006 082	71.9
1973	657 787	603 624	1 078 736	2 340 147	71.9
1974	739 987	640 285	1 069 117	2 449 389	69.8
1975	876 298	733 442	1 105 988	2 715 728	67.7
1976	1 053 265	724 808	1 568 273	3 346 346	68.5
1977	1 289 796	833 948	1 882 556	4 006 300	67.8
1978	1 435 608	948 744	2 133 323	4 517 675	68.2
1979	1 465 468	1 184 305	2 351 655	5 001 428	70.7
1980	1 321 865	1 086 625	1 755 138	4 163 628	68.2
1981	1 344 937	1 272 954	2 217 692	4 835 583	72.2
1982	1 456 898	1 232 880	2 256 222	4 946 000	70.6
1983	1 603 567	1 446 315	2 542 162	5 592 044	71.3

Source: 1964-1977 data prepared by the Reisman Commission; 1978-1983 data prepared by Department of Regional Industrial Expansion.



**TABLE 5.8**

**Canadian Value Added in Automotive Production Compared to Total Value of Canada/U.S. Motor Vehicle Production for the Four Major Vehicle Manufacturers (\$ millions Canadian)**

Year	Canadian Value Added in Motor Vehicles and Parts Including CVA in Exported O.E. Parts	Value of Motor Vehicle Production in Canada and U.S.A.	Canadian Value Added as a Percentage of Canada/U.S. Motor Vehicle Production
1964	785	21 449	3.7
1965	956	28 390	3.4
1966	1 135	27 276	4.2
1967	1 145	24 660	4.6
1968	1 357	31 006	4.4
1969	1 621	31 632	5.1
1970	1 643	24 572	6.7
1971	1 710	33 177	5.2
1972	2 006	36 238	5.5
1973	2 340	42 781	5.5
1974	2 449	37 170	6.6
1975	2 716	42 494	6.4
1976	3 346	55 534	6.0
1977	4 006	72 229	5.5
1978	4 518	87 127	5.2
1979	5 001	87 003	5.7
1980	4 164	65 730	6.3
1981	4 836	70 363	6.9
1982	5 091	69 210	7.4

Note: Canadian value added data are model year data for the 12 months beginning on August 1st of the year previous, while the transfer data for motor vehicles are calendar year data for the 12 months beginning on January 1 of the years noted.

Source: U.S. Department of Commerce, Statistics Canada and Auto Pact Reports.

**TABLE 5.9**

**Automotive Industry, Selected Current and Capital Account Transactions (1)  
between Canada and the United States (\$ millions Canadian)  
1979-1982**

Type of Transaction	1979	1980	1981	1982
United States Imports from Canada (2):				
Cars	4 345	4 452	5 145	7 170
Truck, etc.	2 365	2 218	3 142	3 946
Parts	4 489	3 405	4 151	4 902
Tires and Tubes	234	231	286	406
Total	11 432	10 306	12 724	16 424
Canadian Imports from United States (3):				
Cars	3 747	3 388	3 719	2 877
Trucks, etc.	1 952	1 217	1 339	873
Parts	8 666	7 600	9 230	9 673
Tires and Tubes	155	146	165	147
Total	14 520	12 351	14 453	13 570
New Flow on Merchandise Trade	-3 088	-2 045	-1 729	+2 854
Other Selected Current Account Transactions	- 793	- 641	- 583	- 819
Net Flow on Current Account	-3 881	-2 686	-2 312	+2 035
Capital Account Transactions				
Long-Term Investment in Canada (4)	- 27	+ 485	+ 562	+ 67
All Other Capital	+ 526	- 392	+ 216	- 111
Net Flow on Capital Account	+ 499	+ 93	+ 778	- 44
Net Flow on Current and Capital Account	-3 382	-2 593	-1 534	+1 991

(1) Items contained in the statement do not reflect the full range of current and capital flows associated with the automotive industry, but a selection of important elements. Balances should be read bearing in mind this qualification.

(2) Data are converted on a monthly noon average exchange basis.

(3) Excluding special tooling charges on parts imported from United States.

(4) Exclusive of undistributed earnings.

This table presents data on the main current and capital account movements between Canada and the United States within the automotive sector. It covers the four major automobile manufacturers in Canada and other Canadian manufacturers of automotive parts and accessories.

The statement does not purport to show the complete balance of payments impact of the Automotive Products Agreements as, besides international freight costs which are generally excluded from the reported values of vehicles and parts, the effects on trade with third countries and other sectors of the economy are not covered.

In identifying the automotive industry, for the purpose of this table, particular attention was paid to the manufacturers resident in Canada whose products could be identified in merchandise trade statistics. In addition to the automobile manufacturers, the data accordingly cover suppliers and product manufacturers engaged in the automotive after-market industries (where identifiable in balance of payments surveys).

Source: Statistics Canada.

**TABLE 5.10**

**Scheduled Changes under the General Agreement on Trade and Tariffs for Most Favoured Nation Ad Valorem Rates of Duty, Tariff Items 43803-1 and 61815-1**

	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
Automobiles and motor vehicles of all kinds, n.o.p.; electric trackless trolley buses; chassis for all the foregoing. (Tariff Item 43803-1)	12.1	11.4	10.7	9.9	9.2
Tires and Tubes, wholly or in part of rubber. (Tariff Item 61815-1)	13.9	12.9	12.0	11.1	10.2

**EMPLOYMENT**

TABLE 6.1

Employment Related to Automotive Manufacturing in Canada: 1964-1983  
(Thousands)

CALENDAR YEAR	MOTOR VEHICLE ASSEMBLY (SIC 323)	TRUCK BODY & TRAILERS (SIC 324)	AUTOMOTIVE PARTS & ACC. (SIC 325)	AUTOMOBILE FABRIC & ACC. (SIC 188)	TOTAL
1964	34.3	4.4	30.5	1.3	70.5
1965	39.8	5.8	35.3	1.9	82.8
1966	40.7	6.3	37.6	2.7	87.3
1967	38.7	6.7	37.7	2.6	85.7
1968	39.6	6.8	37.3	3.1	86.8
1969	42.3	8.2	40.4	4.1	95.0
1970	37.5	8.4	36.4	3.7	86.0
1971	41.0	10.1	41.3	4.3	96.7
1972	41.9	14.2	41.4	5.2	102.7
1973	45.2	14.8	48.8	5.8	114.6
1974	47.1	15.2	45.9	5.7	113.9
1975	43.4	14.4	41.2	4.8	103.8
1976	46.6	14.0	46.2	5.6	112.4
1977	50.6	12.6	48.6	6.5	118.3
1978	52.3	13.6	52.1	6.9	124.9
1979	52.6	14.8	49.8	6.6	123.8
1980	43.9	12.9	41.0	6.3	104.1
1981	43.4	12.1	44.7	7.2	107.4
1982	42.7	8.6	41.1	6.3	98.7
1983*	44.4	11.5	55.2	4.5	115.6

\* Effective March, 1983, employment data is based on a sample survey rather than those firms with 20 or more employees as was the case prior to 1983. Accordingly 1983 data cannot be compared with the historical employment data.

Source: Statistics Canada.

**TABLE 6.2**

**Employment Related to Automotive Manufacturing in the U.S.: 1972-1983  
(Thousands)**

YEAR	TOTAL MOTOR VEHICLES AND EQUIPMENT (SIC 371)	MOTOR VEHICLES (SIC 3711)	TRUCKS AND BUS BODIES (SIC 3713)	PARTS & ACCESSORIES (SIC 3714)	AUTOMOTIVE STAMPINGS (SIC 3465)
Annual Average					
1972	874.8	415.2	46.1	383.0	104.5
1973	976.5	461.6	51.3	429.9	110.9
1974	907.7	416.2	54.8	402.7	95.5
1975	792.4	375.3	45.5	352.5	82.1
1976	881.0	415.9	43.7	399.0	99.5
1977	938.0	439.8	47.5	424.3	110.0
1978	977.1	451.5	51.4	443.6	114.0
1979	994.6	464.2	45.8	444.4	115.0
1980	788.8	368.1	39.7	349.5	95.3
1981	788.7	358.7	37.0	363.3	93.7
1982	704.8	321.3	31.1	325.4	82.0
1983	772.7	363.1	31.8	344.2	88.6

Source: U.S. Bureau of Labor Statistics.

Based on 1972 Standard Industrial Classification (SIC), Annual Average 1972-1983.

**TABLE 6.3**

**Automotive Parts Industry by Number of Employees: 1982**

Number of Employees	Number of Establishments	Per Cent of Total Establishments	Value of Shipments (\$ millions)	Per Cent of Total Shipments
fewer than 100	257	72.6	663.6	13.1
100-500	78	22.0	1 434.0	28.3
500 or more	19	5.4	2 962.2	58.6
Total	354	100.0	\$5 059.8	100.0

Source: Statistics Canada.

**VEHICLE ASSEMBLY AND  
PARTS MANUFACTURING PLANTS  
IN CANADA**



TABLE 7.1

MAJOR MOTOR VEHICLE ASSEMBLY PLANTS IN CANADA

LOCATION	COMPANY/PLANT NAME	MAIN PRODUCTS
<b><u>British Columbia</u></b>		
Burnaby	Canadian Kenworth Company (a Division of Paccar Canada Ltd.)	trucks
Burnaby	Freightliner of Canada Ltd.	trucks
Kelowna	Western Star Trucks Inc.	trucks
North Vancouver	Pacific Truck and Trailer Ltd.	trucks
<b><u>Manitoba</u></b>		
Winnipeg	Flyer Industries Ltd.	buses
	Motor Coach Industries	buses
<b><u>Nova Scotia</u></b>		
Halifax	Volvo Canada Ltd.	cars
<b><u>Ontario</u></b>		
Brampton	American Motors (Canada) Ltd.	cars
Chatham	International Harvester Canada	trucks
Oakville	Ford Motor Company of Canada, Ltd.	cars
	Ford Ontario Truck Plant	trucks
Oakville	Mack Canada, Inc.	trucks
Oshawa	General Motors of Canada Ltd.: Car Assembly Plant	cars
	GM Truck Assembly Plant	trucks

LOCATION	COMPANY/PLANT NAME	MAIN PRODUCTS
Mississauga	Ontario Bus Industries Ltd.	buses
Scarborough	GM Van Plant	vans
St. Thomas	Ford Motor Company of Canada, Ltd.	cars
Windsor	Chrysler Canada Ltd.: Car Assembly Plant	van wagons
	Pillette Road Plant	vans and wagons
<b><u>Québec</u></b>		
Saint-Eustache	GM Diesel Division Coach Plant	buses
Sainte-Thérèse	Canadian Kenworth Company (a division of Paccar Canada Ltd.)	trucks
Sainte-Thérèse	General Motors of Canada, Ltd.	cars
Sainte-Claire	Prévost Car, Inc.	buses

Source: Compiled from information supplied by the companies, the Motor Vehicle Manufacturers' Association and Statistics Canada.

**TABLE 7.2**

**A PARTIAL LIST OF MAJOR AUTOMOTIVE PARTS PLANTS IN CANADA**

<u>COMPANY/PLANT NAME</u>	<u>LOCATION</u>	<u>MAIN PRODUCTS</u>
<u>In-house facilities</u>		
<b>American Motors (Canada) Inc.</b>	Sarnia	blocks & casting
<b>Chrysler Canada Ltd.</b>		
Trim Plant	Ajax	door panels; seat cushions & backs
Aluminum Casting Plant	Etobicoke	pistons, water pump bodies, transmisson transfer cases
<b>Ford Motor Company of Canada Ltd.</b>		
Niagara Glass Plant	Niagara Falls	automotive glass
Essex Plant	Windsor	V6 engines
Ensite Engine Plant #1	Windsor	V8 engines
Ensite Engine Plant #2	Windsor	engine machinery & stampings
Casting Plant	Windsor	iron castings
Essex Aluminum Plant	Windsor	aluminum castings
Philco Ford	Don Mills	radio and electronic components
<b>General Motors of Canada Ltd.</b>		
Fabrication Plant	Oshawa	stampings, batteries, radiators, instrument clusters, plastics, reaction injection molding
Foundry	St. Catharines	metal castings (ferrous and non ferrous)
Axle Plant	St. Catharines	axles, disc brakes, spark plugs, front suspensions, transmission components
Engine Plant	St. Catharines	V6 & V8 engines
Trim Plant	Windsor	trim sets, door covers
Transmission Plant	Windsor	front wheel drive automatic transmissions

COMPANY NAME	PRIMARY LOCATIONS	MAIN PRODUCTS
<b><u>Foreign-Owned Independent Manufacturers (larger facilities)</u></b>		
AP Parts of Canada	Rexdale	mufflers, tail & exhaust pipes
Budd Canada Inc.	Kitchener Winnipeg	frames, engine heaters
Canadian Fram Limited	Chatham	emission controls, cooling systems
Certified Brakes	Rexdale	brake disc pads, brake linings, hydraulic parts
Continental Group of Canada Ltd.	Amerstburg, Brampton	stampings, springs
Hayes-Dana Inc.	St. Catharines & Barrie	drive shafts, frames, axles
Kelsey-Hayes Canada Ltd.	Windsor, St. Catharines	wheels, brake parts
Kralinator Filters	Cambridge	oil, fuel & air filters
Motor Wheel Corporation of Canada Ltd.	Chatham	wheels, rims & flanges
Rockwell International of Canada Ltd.	La Colle, Tilbury, Gananoque, Mississauga, Bracebridge, Chatham and Milton	coil springs, brakes, mechanical components stampings, plastic components
Standard Tube Canada Ltd.	Woodstock	axle components
Standard Products Canada	Stratford	weather stripping, engine and body mounts
TRW Canada, Thompson Products Div.	St. Catharines	steering components, valves electro-mechanical devices
Varta Batteries Ltd.	Lachine, Scarborough, St. Thomas, Winnipeg, Richmond	batteries
Walker Exhausts	Cambridge	mufflers, tail and exhaust pipes

COMPANY NAME	PRIMARY LOCATIONS	MAIN PRODUCTS
<b><u>Canadian-Owned Companies</u></b>		
A.G. Simpson Co. Ltd.	Toronto and Windsor	stampings
Ahoy Industries Inc.	Richmond	truck exhaust tubings
Amcan Castings Ltd.	Hamilton	die castings
Asbestonos	Montreal	brake & clutch products
Bulter Metal Products Co. Ltd.	Cambridge	stampings
CAE Industries Ltd.	St. Catharines, Montreal, Welland, Vancouver	non-ferrous and light alloy castings
Canadian-General Tower Ltd.	Cambridge	seat fabrics
Crila Plastic Industries Ltd.	Bolton	trim
Do Ray Lamp Company (Canada)	Toronto	truck lighting and safety equipment
Dominion Auto Accessories Ltd.	Toronto	protective lighting, mirrors, directional signals
Fabricated Steel Products Ltd.	Windsor	stampings
Fleck Manufacturing Company	Tillsonburg & Huron Park	wire harnesses
Huron Steel Products	Windsor	stampings
Kendan Manufacturing Ltd.	Windsor	diesel engine components
Keystone A&A Industries Ltd.	Richmond	Wheels and wheel covers
Magna International Incorporated	Markham	stampings, plastic components, motors and instrumentation
National Auto Radiator Mfg. Co.	Windsor	stampings
R.J. Stampings Company Ltd.	Montreal, Smith Falls	stampings
Stelco Inc. (parts mfg. only)	Gananoque and Toronto	fasteners and forgings

<u>COMPANY NAME</u>	<u>PRIMARY LOCATIONS</u>	<u>MAIN PRODUCTS</u>
<b><u>Canadian-Owned Companies</u></b> (Cont'd)		
Tamco Ltd.	Windsor	gear shift levers, steering column jackets
Thrush Incorporated	Rexdale	mufflers, exhaust tubing
Tridon Ltd.	Burlington & Oakville	clamps, electronic flashers, wiper blades
Waterville Cellular Products Ltd.	Waterville	rubber products, padded auto instrument panels
Woodbridge Foam Corporation	Toronto	sets and other foam rubber components

A comprehensive listing of Canadian parts manufacturers is available through the Automotive Parts Manufacturers Association.

